United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Ely District Office
702 North Industrial Way, HC 33 Box 33500
Ely, NV 89301
http://www.blm.gov/nv/st/en/fo/ely_field_office.html

In Reply Refer To:
9210 (NVL0044)

DECISION RECORD
Combs Creek Habitat Improvement and Fuels Reduction Project (DOI-BLM-NV-L010-2010-0023-EA)

Background

The Bureau of Land Management has completed planning and an environmental assessment (EA) to conduct a habitat improvement and hazardous fuels reduction project near Combs Creek, approximately 20 miles northwest of Ely, Nevada. The objective of the project is to improve habitat conditions for sage grouse, mule deer, and other wildlife within sagebrush, mountain shrub, and riparian plant communities. The project will be accomplished primarily by reducing pinyon and juniper trees within sagebrush ecological sites to improve the overall vegetative composition, diversity, vigor, production and cover of native perennial grass, forb and shrub species. The project will improve habitat for sage grouse and big game within the area and reduce the risk for catastrophic wildfire within the area. The total project area is approximately 23,277 acres, of which 4,400 acres have been identified for treatment, and no more than 7,000 acres of the project area will be treated.

On January 23, 2012 a Finding of No Significant Impact (FONSI) for the Combs Creek Habitat Improvement and Fuels Reduction Project was issued and approved. The FONSI was based on environmental effects disclosed in the EA (DOI-BLM-NV-L010-2010-0023-EA) that was completed for the project. The FONSI demonstrates that an environmental impact statement pursuant to Section 102(C) of the National Environmental Policy Act is not required. The above referenced FONSI and EA are attached to this decision.

Decision

It is my decision to implement the Combs Creek Habitat Improvement and Fuels Reduction Project as described in the proposed action of the attached EA (DOI-BLM-NV-L010-2010-0023-EA). All actions, design features and standard operating procedures and monitoring as described in the proposed action will be incorporated during project implementation.

This decision is in conformance with vegetation and fire management resource goals, objectives and decisions as described in the Ely District Resource Management Plan (2008). This decision also complies with the Healthy Forest Restoration Act (2003). The decision is consistent with plans and policies of neighboring local, county, state and federal agencies and governments including the Final Programmatic Environmental Report- Vegetation Treatments on Bureau of

Land Management Lands in 17 Western States (approved in 2007), White Pine County Elk Management Plan (2007), The Northeastern Great Basin Resource Advisory Council Standards and Guidelines (1997), and all supplemental authorities listed in Appendix 1 of the BLM National Environmental Policy Act Handbook H-1790-1 (2008).

Rationale

The decision to implement the proposed action of the Combs Creek Habitat Improvement and Fuels Reduction EA was selected as it will best meet the purpose and need for the action. Pinyon and juniper removal within the project area will improve the ecological condition of the sagebrush community, improve wildlife habitat, reduce fuel loading, and reduce the risk of large catastrophic or habitat disturbing wildfires. Future natural fires will be less extensive, smaller and of lower intensity and severity. Smaller wildfires will be easier to manage, reducing the risk to multiple natural resources, private lands, physical structures associated with right-of-ways and aesthetic values. The danger of large wildfires will be reduced and the Fire Regime Condition Class will move toward a natural (historic) ranges. The proposed action will facilitate the accomplishment of the purpose and need for the proposal much quicker compared to the no action alternative discussed in the EA.

Public Involvement

A scoping letter describing the project proposal was mailed to interested publics on May 24, 2010. The letter was sent to groups or individuals who have expressed an interest in participating in habitat improvement and hazardous fuels reduction projects as well as State and Federal wildlife agencies. The project proposal was also posted on the Ely District website in May, 2010. Comments were received from two individuals in response to the scoping letter. One letter received from a landowner in the area objected to treating vegetation within 500 yards of private land located along Bothwick Creek. The other letter received from a grazing permittee in the area responded that the project was long overdue, however it would be difficult to keep cattle off of the treatment area for a minimum of two growing seasons or until vegetative objectives are achieved. In response to the landowners concern, no vegetation treatment will occur within 500 yards of Bothwick Creek. In response to the permittee's concern, BLM and the permittee will continue to coordinate on grazing following the treatment, which may include a grazing closure.

A letter was mailed to Native American Tribes regarding this action in June 2010. Comments were received from two tribes. The comments indicated no issues, concerns, or objections to the project. The project was presented to the White Pine Public Land Users Advisory Committee (PLUAC) on May 24, 2011. The committee voted to approve the project.

The preliminary EA was mailed to interested public on July 15, 2011. Comments were requested by August 10, 2011. The preliminary EA was also posted on the Ely District BLM website on July 24, 2011. During the review and comment period a response was received from the Nevada State Clearinghouse who indicated by email on August 8, 2011 that State agencies had no comments to the project. Western Watersheds Project submitted comments by e-mail on

August 16, 2011 after the comment period ended. These comments were reviewed and retained in the administrative file for this project.

Appeal Procedures

All of the documents supporting this decision are available for review by the public.

Appeal procedures for this decision are outlined in Title 43 of the Code of Federal Regulations (CFR), Part 4.

In accordance with Title 43 CFR 4.410, any party to a case who is adversely affected by the decision of an officer of the Bureau of Land Management shall have a right to appeal to the Interior Board of Land Appeals (Board). In accordance with Title 43 CFR 4.411, a person who wishes to appeal the decision must file a notice that he wishes to appeal in the office of the authorized officer who made the decision. In accordance with Title 43 CFR 4.413, within 15 days of filing the notice of appeal and any petition for stay, the appellant also must serve a copy of the appeal and any petition for stay on any person named in the decision and on the Office of the Solicitor in the manner prescribed in Title 43 CFR 4.401(c). The office to file notice of appeal and a copy of the notice to appeal:

Bureau of Land Management Ely District Office HC 33 Box 33500 Ely, NV 89301	and a copy to	Office of the Regional Solicitor Pacific Southwest Region U.S. Department of the Interior 2800 Cottage Way, Room E-2753 Sacramento, CA 95825-1890

A person served with the decision being appealed must transmit the notice of appeal in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. In accordance with Title 43 CFR 4.411 (b), the notice of appeal may include a statement of reasons for the appeal, a statement of standing if required by Title 43 CFR 4.412 (b), and any arguments the appellant wishes to make. In accordance with Title 43 CFR 4.412 (a), if the notice of appeal did not include a statement of reasons for the appeal or the appellant wishes to file additional statements of reasons, the appellant shall file such statements with the Board within 30 days after the appeal was filed. The address to file such statements to the Board is:

Board of Land Appeals
Office of Hearings and Appeals
801 North Quincy Street
Arlington, VA 22203

If statement of reasons for appealing were filed with the "Notice of Appeal", no additional statement is necessary.

Pursuant to Title 43 CFR 4.21 (b), an appellant also may petition for a stay of the final decision pending appeal by filing a petition for stay along with the notice of appeal.

At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service [Title 43 CFR 4.422(c)(2)].

Approval

Tye Petersen
Fire Management Officer
Ely District Office

1/23/12
Date

Attachments:
Finding of No Significant Impact (FONSI)
Combs Creek Habitat Improvement and Fuels Reduction Project Environmental Assessment (DOI-BLM-NV-L010-2010-0023-EA)

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Ely District Office
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TAKE PRIDE IN AMERICA

In Reply Refer To:
9210 (NVL0044)

Finding of No Significant Impact
Combs Creek Habitat Improvement and Fuels Reduction Project
DOI-BLM-NV-L010-2010-0023-EA

Finding of No Significant Impact

I have reviewed the attached environmental assessment (EA) for the proposed Combs Creek Habitat Improvement and Fuels Reduction Project DOI-BLM-NV-L010-2010-0023-EA, dated August 15, 2011. After consideration of the environmental effects as described in the EA, and incorporated herein, I have determined that the proposed action with the design specifications will not have negative significant impacts on the quality of the human environment and that an Environmental Impact Statement (EIS) is not required.

This finding is based on consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), with regard to the context and the intensity of impacts described in the EA.

Context:

The project area analyzed in the EA is located in the southeast portion of Butte Valley in the sagebrush benches and foothills and pinyon-juniper woodlands along the west side of the Egan Range in the Butte Valley Watershed. The project area is located in Township 18 North, Range 61 East; Township 18 North, Range 62 East; Township 19 North, Range 61 East; Township 19 North, Range 62 East; Township 20 North, Range 62 East; Mt. Diablo Base and Meridian (MDB&M); White Pine County, Nevada. The primary vegetation within the project area consists of black and mountain sagebrush and mountain brush native plant communities among both open and dense stands of singleleaf pinyon and Utah juniper trees. The total project area perimeter includes approximately 23,277 acres, of which 4,400 to 7,000 acres could be treated. Approximately 90 percent of the lands within the project area perimeter are public lands administered by the Bureau of Land Management (BLM), while 10 percent are private lands.

The proposed action does not have impacts or influence outside the watershed within which the project occurs. The proposed action does not have any regional or global implications that would expand the context of the impacts.

Intensity:

The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into BLM's Critical Elements of the Human Environment list (H-1790-1), and supplemental Instruction Memorandum, Acts, regulations and Executive Orders. The following have been considered in evaluating intensity for this proposal:

1. Impacts that may be both beneficial and adverse.

The environmental assessment has considered both beneficial and adverse impacts of the proposed project. The analysis contained within the attached environmental assessment reflects an equal evaluation of all foreseeable impacts associated with the alternatives. In general the impacts associated with the Combs Creek Habitat Improvement and Fuels Reduction Project are considered to be improving the quality of the human environment through proactive treatments and fuels management. Temporary displacement of livestock and wildlife is considered to be a minor and short term impact in relation to the long term benefit on improved habitat.

2. The degree to which the proposed action affects public health or safety.

The proposed action will result in improved public health and safety by reducing the existing fuel load and reducing the potential for crown fire that could occur within the pinyon and juniper that has become established on sagebrush ecological sites. Treatment designs and mitigating measures incorporated into the proposed action will minimize impacts to public health and safety. Public health and safety could be compromised if vegetation treatments are not implemented in the area. Vegetation, soils, wildlife habitat and other watershed values will be at substantial risk to wildfire (especially crown fire) due to continuing encroachment and establishment of pinyon and juniper on sagebrush ecological sites. Soils will be at immediate risk to wind and water erosion in the event a large, uncontrolled wildfire event occurred.

The treatments will be conducted according to BLM safety standards. Workplace hazard risks assessments will be completed by the workforce supervisor prior to on-the-ground activities.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas.

The project area is representative of the Great Basin in terms of vegetative condition and ecological functionality. Treatment design features and mitigating measures associated with the proposed action will improve the overall vegetative composition within the proposed project area. The project area does not contain any park lands, prime farmlands, wetlands or wild and scenic rivers. The area is not considered an ecologically critical area, but failure to take action to improve the understory species and reduce competition of pinyon and juniper within the sagebrush ecological site could place the area at risk to decreasing vegetative composition, health, vigor and production of perennial grass, forb and shrub species. This would increase the site vulnerability to a large wildfire which would also increase the chance of erosion and/or the establishment of noxious or invasive weeds following a large wildfire. Failure to complete the

project could further reduce habitat for sensitive species if woody vegetation is allowed to continue increasing in density.

Cultural resources and the potential impacts to those resources within the area have been considered and it has been determined that the proposed action will not have an impact upon them. Cultural resources eligible for consideration in the National Historic Register will be avoided or impacts mitigated as necessary before any surface disturbing treatments are initiated.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The methods of vegetation treatment activities are scientifically accepted, and are commonly employed to meet resource or management objectives. The effects of hazardous fuels reduction are well known and documented and are not highly controversial in that reduced fuel loading, equates to reduced fire severity and intensity. Other projects have occurred within the BLM Ely District area and in the Great Basin area. The effects from implementing the proposed action are well known and documented, and are not considered to be highly controversial.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no known effects of the proposed action identified in the EA that are considered uncertain or involve unique or unknown risks. All vegetation treatment methods proposed are accepted standard management practices that have been successfully implemented in similar vegetation types within the BLM Ely District area and in the Great Basin.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action will not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration. All future hazardous fuels reduction, vegetation treatments or habitat improvement projects, if they occur would be subject to the same National Environmental Policy Act standards and independent decision making. The project is not part of a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

All resources have been evaluated for cumulative impacts in the EA and no significant impacts were identified. Currently there is a range improvement (fence, well and pipeline) action in the valley bottom located approximately two miles west of the habitat improvement and fuels reduction project. A right-of-way for a potential transmission line traverses through a portion of the habitat improvement project. This project in culmination with the range improvement project will benefit habitat conditions within the Butte Valley Watershed. Cumulative impacts have been addressed in the EA which have been found to be primarily beneficial.

8. The degree to which the action may adversely affect districts, sites, highways, structures or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural or historical resources.

The proposed action will not adversely affect districts, sites, highways, structures or objects listed on or eligible for listing in the National Register of Historical Places, nor will it cause the loss or destruction of significant scientific, cultural or historical places. A cultural resource inventory will be completed prior to implementation and ground disturbing activities will avoid all sites eligible for listing in the National Register. The proposed action attempts to restore a natural or historical vegetation regime for sagebrush and woodland sites. Therefore, the proposed action will not have an impact on the historic setting or feeling of resources within the area.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA of 1973.

It has been determined that no federally listed threatened or endangered species occur within the proposed project area.

10. Whether the action threatens a violation of Federal, State or local law or requirements imposed for the protection of the environment.

The proposed action will not violate or threaten to violate any Federal, State or local law or requirement imposed for the protection of the environment.

Tye Petersen
Fire Management Officer
Ely District Office

1/23/12
Date

U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment
DOI-BLM-NV-L010-2010-0023-EA
August 15, 2011

Combs Creek Habitat Improvement
And
Fuels Reduction Project

Location: White Pine County, NV

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Egan Field Office
Phone: (775) 289-1800
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BLM

NATIONAL SYSTEM OF PUBLIC LANDS

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1.0 Introduction

1.1 Background Information

This environmental assessment (EA) identifies issues, analyzes alternatives, and discloses the potential environmental impacts associated with the proposed Combs Creek Habitat Improvement and Fuels Reduction Project. This EA fulfills the National Environmental Policy Act (NEPA) requirement for site-specific analysis of resource impacts. The analysis in this EA assists in making a determination of the significance of impacts to the human environment associated with the actions developed to meet the purpose and need. If a determination is made that impacts are significant, an Environmental Impact Statement (EIS) will be prepared. If impacts are not significant, a "Finding of No Significant Impact" (FONSI) will be prepared.

The project would occur in Butte Valley, within the Thirty Mile Spring and South Butte Grazing Allotments, approximately 15 miles west and northwest of Ely, Nevada. The project is located entirely in White Pine County and would occur in the Butte Watershed (See Appendix A; Map 1). The legal descriptions of the habitat improvement and fuels reduction proposal in the Butte Watershed are as follows:

T. 18N., R. 61E., portions of sections 1, 2, 3, 4, 11;
T. 19N., R. 61E., portions of sections 13, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36;
T. 18N., R. 62E., portions of sections 5, 6, 7, and 8;
T. 19N., R. 62E., portions of sections 3 through 10, 14 through 22, and 28 through 32; and
T. 20N., R. 62E., portions of sections 27, 28, 29, 32, 33, 34.

This would be a cooperative project where treatments would occur on public lands managed by Bureau of Land Management (BLM) and also on some private property parcels within the project area. Private property owners would conduct vegetation treatments as described below on some parcels within the project area to benefit sage-grouse.

The primary vegetation within the project area consists of black and mountain sagebrush (*Artemesia nova and Artemesia tridentata ssp. vaseyana*), and other native mountain shrub species amongst both open and dense stands of singleleaf pinyon (*Pinus monophylla*) and Utah juniper trees (*Juniperus osteosperma*). Several spring sources and small riparian areas, as well as one perennial creek (Combs Creek) are also present in the project area. The shrub and riparian communities are valuable habitat areas for sage-grouse, mule deer, and other wildlife species. Pinyon and juniper tree canopy cover is high in some of the shrub and riparian communities and near some spring sources. The area for consideration and analysis in this EA is 23,277 acres, and treatments would occur on approximately 4,400 acres but no more than 7,000 acres.

Throughout many areas of eastern Nevada, sagebrush/grass plant communities are being or have been converted to areas dominated by homogenous stands of sagebrush or to areas with dense canopy cover of pinyon and juniper trees. These areas often are characterized by declining, remnant populations of native perennial grasses and forbs. In some areas, the establishment of pinyon and juniper trees on sagebrush/grass sites has not only resulted in the loss of the grass and forb component, but in the decadence and low vigor of important shrub species such as sagebrush, antelope bitterbrush, little leaf mountain mahogany, serviceberry, and snowberry. When valuable grass, forb, or shrub species decline, excessive surface runoff and soil erosion, reduced soil moisture

and decreased groundwater recharge may occur (Bedell, 1993; Thurow and Hester, 2005). Vegetation communities with little grass or forb understory can limit the amount of viable habitat and forage availability for wildlife species. High tree cover in sagebrush and riparian communities also reduces available habitat to sage-grouse as they tend to avoid tree areas for various reasons which may include reducing encounters with predators. Dense tree and shrub canopy contributes to large uncontrolled fires that are expensive and difficult to suppress. Restoration of burned areas is also expensive and success can vary.

Much of the sagebrush communities in the project area exhibit similar characteristics as described above. Age classes of mountain sagebrush in the project area where it occurs beneath tree canopy are becoming or are currently mature and decadent. Tree cover in sagebrush sites and riparian areas is higher than desired. Sage-grouse utilization has declined within some riparian areas, possibly due to tree density near these areas.

The BLM Ely District completed a Resource Management Plan (RMP) in August, 2008. The RMP established a desired range of conditions for each major vegetation community throughout the planning area. The desired range of conditions for sagebrush communities as described in the RMP is to manage for the mid-late herbaceous state, which includes a combination of shrub canopy cover less than 25% with a diverse understory of grasses and forbs.

One tool used to assess vegetation condition across a landscape is Fire Regime Condition Class (FRCC). Fire Regime Condition Class is an interagency, standardized tool based on scientific and peer reviewed literature for determining the degree of departure from a reference vegetation condition within a given biophysical setting (BPS) (Havlina et al, 2010). Assessing FRCC can help guide management objectives and set priorities for treatments. The classification is based on a relative measure describing the degree of departure from the historical natural disturbance regime for a given BPS. This departure is described as changes to one or more of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure and mosaic pattern); fuel composition; fire frequency, severity and pattern; and other associated disturbances (e.g. insects and disease mortality, grazing and drought). There are three FRCC classes used to describe the departure from reference BPS conditions. The three classes are based on low (0-33% departure; FRCC1), moderate (34-66% departure; FRCC2) and high (67-100% departure; FRCC3) departure from central tendency of the natural (historical) regime. Low departure is considered to be within the natural (historical) range of variability. The FRCC rating is accompanied by indicators of the potential risks that may result. BPS models describe the vegetation, geography, biophysical characteristics, succession stages, disturbance regimes, and assumptions for each vegetation type (Havlina et al, 2010). Reference conditions described in the BPS models are compared to actual conditions for purposes of determining the current FRCC class. A FRCC rating is determined for the entire project area by determining the weighted average of all major vegetation FRCC ratings. FRCC 1 is desired for each BPS and for the entire watershed. A departure from FRCC 1 (reference condition) to FRCC 2 or FRCC 3 serves as an indicator that changes need to be affected.

Based on mapping, field reconnaissance and analysis, the proposed project area is rated FRCC 2 (See Appendix A, Map 3). This indicates that fire regimes and vegetation attributes have been moderately altered from their historical range. Risk of losing key ecosystem components is moderate. Departure within each succession class of the four major vegetation communities within the project area is shown in Table 1.

Table 1.1.1 Departure from Reference Conditions for Biophysical Settings of Four Major Vegetation Types within the Combs Creek Project Area.

BPS MODEL & CLASS		Reference Condition Percentages	Current Condition Percentages	Current Condition Difference from Reference Condition
PINYON AND JUNIPER WOODLANDS-(1210190)	A	5%	1%	-4%
	B	5%	1%	-4%
	C	20%	18%	-2%
	D	35%	14%	-21%
	E	35%	14%	-21%
	U	0%	52%	52%
BPS MODEL & CLASS		Reference Condition Percentages	Current Condition Percentages	Current Condition Difference from Reference Condition
Great Basin Xeric Mixed Sagebrush Shrubland (1210790)	A	15%	0%	-15%
	B	60%	54%	-6%
	C	15%	3%	-12%
	D	10%	8%	-2%
	U	0%	35%	35%
BPS MODEL & CLASS		Reference Condition Percentages	Current Condition Percentages	Current Condition Difference from Reference Condition
Inter-Mountain Basins Montane Sagebrush Steppe (1211260)	A	20%	0%	-20%
	B	50%	0%	-50%
	C	15%	19%	4%
	D	10%	15%	5%
	E	5%	46%	41%
	U	0%	20%	20%
BPS MODEL & CLASS		Reference Condition Percentages	Current Condition Percentages	Current Condition Difference from Reference Condition
Inter-Mountain Basins Big Sagebrush ShrublandSteppe (1210800)	A	15%	0%	-15%
	B	50%	0%	-50%
	C	25%	37%	12%
	D	5%	2%	-3%
	E	5%	19%	14%
	U	0%	42%	42%

1.2 Purpose and Need for Action

The need for the project is indicated by the departure of vegetative conditions relative to the desired conditions for wildlife habitat, fuel loading, reference conditions, and goals set in the Ely District RMP. Shrub and tree canopy cover is more than desired while understory forbs and grass cover is

diminishing in shrub communities of the project area. Plant community composition is outside the desired range for mountain shrub and sagebrush communities. The need for the project is to move percentages of each seral class closer to the reference condition, and to improve the age class distribution and vigor of native sagebrush. The age classes of mountain sagebrush in the project area where it occurs beneath tree canopy are mostly mature or becoming decadent. Vegetation attributes and historic disturbance regimes need to be restored. The need for the project is also to restore the plant community to a more resilient state with an appropriate fire regime that would respond well to disturbances such as drought, wildfire, flooding, or grazing, and provide suitable habitat for sage-grouse.

The purpose of the project is to:

- Create conditions in sagebrush communities to better meet reference conditions as described in associated BPS models;
- Improve habitat conditions for sage-grouse, mule deer, and other wildlife within the sagebrush, mountain shrub, and riparian communities;
- Meet the desired range of condition for sagebrush communities as outlined in the Resource Management Plan for the BLM Ely District (BLM 2008);
- Prevent the risk of large, uncontrollable wildfires by reducing fuel loading within sagebrush communities of the project area;
- Improve the native vegetative attributes of production, cover, composition, structure, vigor, and litter for native shrubs, grasses, and forbs; and
- Reduce the upland tree and shrub species from riparian habitats.

Resource management objectives for the project area include the following:

Short Term (immediately post treatment)

- Reduce tree canopy cover in sagebrush communities to 5% or less on treated sites (up to 7,000 acres)
- Create mosaic of treated and untreated areas to provide hiding cover near mule deer forage areas;
- Manually thin trees in and around riparian systems to reduce pinyon and juniper canopy cover to improve sage-grouse habitat.

Long Term (5 to 10 years post treatment)

- Create sagebrush communities where live shrub canopy cover ranges between 11% to 25% where perennial grasses and forbs co-dominate the community with shrubs

1.3 Relationship to Planning

The Proposed Action is in conformance with, and tiers to the analysis completed for the Ely District Resource Management Plan (RMP) and Record of Decision (ROD) (August, 2008). The project conforms specifically to the following goals, objectives and management actions found in the RMP:

- **Vegetation Resources**

  Goal

Manage vegetation resources to achieve or maintain resistant and resilient ecological conditions while providing for sustainable multiple uses and options for the future across the landscape.

Objectives

To manage for resistant and resilient ecological conditions including healthy, productive, and diverse populations of native or desirable nonnative plant species appropriate to the site characteristics.

General Vegetation Management

VEG-1: Emphasize treatment areas that have the best potential to maintain desired conditions or respond and return to the desired range of conditions and mosaic upon the landscape, using all available current or future tools and techniques.

Parameter – Sagebrush (basin big sagebrush, Wyoming big sagebrush, mountain big sagebrush, and black sagebrush)

VEG-17: Integrate treatments to: 1. Establish and maintain the desired herbaceous state or early shrub state where sagebrush is present along with a robust understory of perennial species. 2. Prioritize treatments toward restoration of sagebrush communities on areas with deeper soils and higher precipitation.

VEG-18: Manage native range to meet the requirements of wildlife species. Management will focus on maintaining or establishing diversity, mosaics, and connectivity of sagebrush between geographic areas at the mid and fine scales.

General Forest/Woodland and Other Plant Product Management

Parameter - Biomass Products

FP-22: Allow biomass harvest in areas where vegetation projects require vegetation removal and meet project objectives.

- **Fire Management**

Goals

Provide an appropriate management response to all wildland fires, with emphasis on firefighter and public safety, consistent with overall management objectives. Return fire to its natural role in the ecological system and implement fuels treatments, where applicable, to aid in returning fire to the ecological system. Establish a community education program that includes fuels reduction within the wildland urban interface to create fire-safe communities.

Management Actions

FM-3: Implement and update the Ely Fire Management Plan, as needed. Tier the Ely Fire Management Plan to the general fire management actions in this RMP. Fire management units within the planning area have been identified on the basis of similar vegetation type and condition, management constraints, issues, and objectives and strategies. The following management actions will take place within those fire management units.

1) **Fuels treatments** – develop and implement prescribed fire and non-fire fuels treatments (mechanical, chemical, and biological) to create fire-safe communities, protect private property, achieve resource management objectives (Section 2.4.5, Vegetation Resources), and restore ecological system health;

FM-4: Incorporate and utilize Fire Regime Condition Class as a major component in fire and fuels management activities. Use Fire Regime Condition Class ratings in conjunction with vegetation objectives (see the discussion on Vegetation Resources) and other resource objectives to determine appropriate response to wildland fires and to help determine where to utilize prescribed fire, wildland fire use, or other non-fire (e.g., mechanical) fuels treatments.

FM-5: In addition to fire, implement mechanical, biological, and chemical treatments along with other tools and techniques to achieve vegetation, fuels, and other resource objectives.

1.3.1 Relationship to Other Plans

The proposed action is in compliance with the following laws, regulations, and Executive Orders:

- The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994)
- The Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996)
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997).
- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989)
- The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984, and 1988)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds (2001)

The proposed action is consistent with the following plans:

- White Pine County Public Lands Policy Plan (2007).
- White Pine County Portion (Lincoln/White Pine Planning Area) Sage-grouse Conservation Plan (2004)
- White Pine County Elk Management Plan (2007 revision)

- The plan identified vegetation conversion projects by Nevada Department of Wildlife (NDOW) management units that would improve wildlife habitat and promote growth of the elk herd by creating a more diverse mixture of grasses, forbs and shrubs. The project area lies within NDOW Management Unit 121. Unit 121 was ranked high for project development and high for augmentation in March 1999. The estimated population of elk within Management Unit 121 was 20 animals in 1998. The long term goal for White Pine County was to have 550 animals within this unit group, which includes Units 104 and 108. The estimated population of elk within this unit group (121, 104, 108) was 300 animals as of 2009 (personal communication with NDOW on April 12, 2010).

Archaeological

- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (1999).
- U.S.D.I. BLM Manual 8100 – The Foundations for Managing Cultural Resources.
- Archaeological Resources Protection Act of 1979 (ARPA) 16 U.S.C. 470aa.
- Section 106 of the National Historic Preservation Act of 1966 (NHPA).
- 36 CFR Part 800, Section 106

Water Resources

- Safe Drinking Water Act, as amended (42 USC 300f *et seq.*)
- Clean Water Act of 1977

The proposed action would facilitate the following National goals:

- *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, Ten-Year Comprehensive Strategy* (2001).
- *The Healthy Forests Restoration Act (HFRA) (2003).*

1.3.2 Tiering

The proposed action is tiered to the analysis completed for the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007).

1.4 Relevant Issues and Internal Scoping/Public Scoping

Issues are impacts (effects) or potential impacts to the human environment. The identification of issues for this environmental assessment was accomplished by considering the resources that could be affected by implementation of the Proposed Action or any of the alternatives, through public involvement and input from a BLM interdisciplinary team.

On April 26, 2010 the project was scoped by the Egan Field Office internal resource specialist team to identify any relevant issues. The project was again scoped by the team on October 12, 2010. The preliminary issues identified and discussed during these scoping meetings were the effects of the proposed action on migratory birds, cultural resources, vegetation, and special status species (sage-grouse). In addition, on March 23, 2010 BLM met with the Nevada Department of Wildlife (NDOW) concerning this project. NDOW submitted several comments related to improving sage-grouse and other wildlife habitat at the meeting. Additional comments regarding treatment design and priority locations were discussed during subsequent telephone conversations with NDOW.

This project proposal was posted on the Ely District website in May, 2010. No comments were received from the scoping notice posted on the website.

The project was presented to the Public Lands Users Advisory Committee (PLUAC) on May 24, 2011. The committee supported the project and other similar projects within the county.
A scoping letter concerning the project proposal was mailed to interested publics on May 24, 2010. The letter requested that interested publics notify BLM if they wanted to remain on the mailing list to continue participating in the planning process. Comments were requested by June 30, 2010. Comments were received from two individuals in response to the letter. One response letter objected to the project and expressed that no vegetation treatment should occur within 500 yards of private ground on Bothwick Creek. The other response letter commented that the project was long overdue however, it would be difficult to keep livestock off the treatment area for a minimum of two growing seasons or until vegetative objectives are achieved.

A letter was mailed to Native American Tribes regarding this action in June, 2010. Comments were received from two tribes. The comments indicated no issues, concerns, or objections to the project. One tribe requested a tour of the project area, and requested consideration of cultural resources.

A letter was also mailed to appropriate interested publics on October 10, 2010 notifying them of a field tour of the proposed project scheduled for October 29, 2010. Although there was no response to the letter, BLM further coordinated with interested publics by phone which resulted in a tour with representatives from BLM, NRCS, and one grazing permit holder attending. Based on input from all participants, alternative methods of treating vegetation were discussed during the tour, as well as adding Cedar Spring to the overall project area.

Further information on public coordination can be found in section 8.0 Consultation and Coordination.

2.0 DESCRIPTION of PROPOSED ACTION and ALTERNATIVES

2.1 Proposed Action

The Ely District BLM proposes to treat sagebrush, mountain brush, and woodland ecological sites and reduce fuel loading on selected areas in the Butte Valley Watershed (Maps 1 and 2) using a combination of vegetation treatment methods that minimize disturbance while accomplishing resource objectives. Treatment methods would include thinning of pinyon and juniper trees using equipment such as a bull hog or feller buncher that masticates trees, selective hand thinning of trees using chainsaws, chaining, and herbicide treatment of a small (approximately 5 acre area) along the Combs Creek corridor. Approximately 4,400 acres is identified for treatment, and no more than 7,000 acres could be treated within an overall area of 23,277 acres (Maps 1 and 2). Approximately 50% of the treated acres would be seeded. The seed would be distributed using small, low impact all-terrain vehicles (ATVs) or aerially by helicopter. The seed mixture would include perennial grass, forb, and shrub species adapted to the ecological site. The seed mixture would also be chosen based on species that would be likely to stabilize the soils. Species that could be used include, but are not limited to: Indian ricegrass (*Achnatherum hymenoides)*, crested wheatgrass (*Agropyron cristatum*), bluebunch wheatgrass (*Pseudoroegneria spicata*), Sandberg and/or canby bluegrass (*Poa secunda/Poa canbyii*), western wheatgrass (*Pascopyrum smithii*), Siberian wheatgrass (*Agropyron*

sibiricum), Russian wildrye (*Psathyrostachys juncea*), forage kochia (*Kochia prostrate*), small burnet (*Sanguisorba minor*), and blue flax (*Linum perenne*). Project implementation is proposed to begin in summer 2011 and would be phased in over a two to three year period.

Vegetation treatment would occur in a mosaic pattern, leaving islands of untreated vegetation. A goal of the treatment would be to create wildlife "edge" on the landscape, since wildlife are known to use areas where open/shrub terrain borders tree areas. Both public lands and private lands would be treated. The following describes the preferred treatment methods, however, a variation of the treatment methods could be included in each site:

In pinyon and juniper woodland sites and sagebrush sites greater than 30% slope, selective thinning by hand cutting or mastication with machinery would be preferred. In sagebrush sites with dense pinyon and juniper cover, and less than 30% slope, chaining and mastication would be preferred. Hand thinning would occur within riparian areas. Large machinery would not be used for thinning in riparian areas. If hand thinning is used, resulting biomass would either be left onsite or piled and burned. Map 3 shows locations of the preferred treatment method for target areas. However, any treatment method could be used that is described in the proposed action.

In some areas biomass could be utilized if access is available. Biomass could take the form of ground material and chips, firewood, or posts. It is anticipated that ground material/chips and fuel wood would be the primary form of biomass utilization within the project area. Slash/biomass removal would depend on the type of vegetation treatment method used. Large trees and large tree limbs would be removed from the sites or shredded to small chips and left as mulch on the soil surface to degrade naturally. Some large trees and limbs may be left for woodcutters. The remaining slash/biomass (crushed or cut trees) would either be consolidated and burned following the treatment or left on site to degrade by natural means. Generally, the treatment area would be left open or relatively free of trees, limbs, and slash, since sage-grouse prefer open areas.

Pinyon and juniper trees would be selectively thinned at several small spring sources/riparian areas on public land, and at two spring sources/riparian areas on private land (Map 1). Trees would be thinned to open up the riparian areas for suitable sage-grouse habitat. Some trees would be left at these spring sources to provide shade, cover, and wildlife habitat. Most trees would be left standing along Combs Creek to provide bank stability, shade, cover, and wildlife habitat.

An area of rubber rabbitbrush (*Ericameria nauseosa*) and other dense shrubs along Combs Creek of approximately five acres would be treated with an aquatic approved herbicide (2,4-D) to reduce the shrub component to allow riparian grasses and forbs to expand or colonize the riparian corridor. This treatment would be applied to shrubs manually with small back pack sprayers.

All treatments that create surface disturbance would be inventoried for cultural resources to identify eligible (Historic Properties) and sensitive sites prior to implementing treatments. Identified cultural resource sites would be recorded and evaluated to determine eligibility for the National Register of Historic Places. Eligible cultural resources would be avoided or impacts mitigated as necessary before any surface disturbing treatments (i.e., mechanical thinning, chaining) are initiated.

A survey for mining claim markers in documented active claim sites would be conducted prior to implementing the vegetation treatment. All active mining claim marker locations and tag information would be recorded. Active mining claims which are presently staked would be avoided to the extent practical. Active mining claim markers that are destroyed during treatment operations

would be re-staked using a legal mining claim marker. The re-staking of mining claim markers would occur in coordination with the existing mining claimants to assure accurate, legal staking procedures that would minimize damage to claims.

A Weed Risk Assessment was completed for this proposed action. The measures listed in the Weed Risk Assessment (Appendix B) would be followed during implementation and monitoring to minimize the effects on weeds.

Existing raptor nests that are identified in the project area would be protected with a half mile buffer during their nesting season. To minimize effects to migratory birds, project implementation would occur outside of the breeding/nesting period whenever possible. Potential pygmy rabbit habitat consisting of tall sagebrush shrubs would also be avoided or would be surveyed before treatment to identify occupied habitat to be avoided.

No new roads would be constructed or created during project implementation. Off-road travel with chaining tractors and tree thinning or removal equipment would occur during treatment activities. Loading and unloading any tractors or heavy equipment would occur on existing roads to minimize off-road disturbances and impacts. Some slash would be left to cover routes taken by heavy equipment during tree removal.

An agreement to exclude grazing for a minimum of two growing seasons from those portions of the project area that are re-seeded or until vegetative objectives are met would be established with grazing permittees of the Thirty Mile Spring and South Butte Allotments.

The treatment areas would be monitored before and after project implementation to determine progress towards meeting resource management objectives. All monitoring techniques would follow BLM approved methods. The treatment areas would be monitored to ensure any potential noxious weeds and undesirable species infestations are controlled. If noxious weeds are found, they would be reported to the Ely District Office Weed Coordinator to be included on the treatment schedule as soon as possible.

Follow up project treatments (maintenance treatments) similar to those identified above may be used in subsequent years to ensure the project objectives are achieved or maintained. Both BLM and NDOW would continue to monitor sage-grouse lek activity throughout the south Butte Valley area.

2.2 No Action Alternative

The No Action Alternative is the current management situation. Under the No Action Alternative, the habitat improvement and fuels reduction treatment would not occur.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

Herbicide treatment of pinyon and juniper trees over a large area was considered an alternative action, but was eliminated from detailed analysis since most herbicide treatments that reduce tree canopy cover and density would also reduce or eliminate native shrub plants. The primary project goals are to improve shrub communities for sage-grouse and wildlife. This type of treatment for trees was not given much consideration during the field tour of October 29, 2010.

Prescribed burning a portion of the project area was also considered as an alternative means for accomplishing the purpose and need for the action, however members of the BLM fuels staff indicated that the risk of invasive species spread (particularly cheatgrass) following prescribed fire may be too high in the area. Also, a comment was received to the public scoping notification for this project from a landowner who objected to using prescribed burning in the area. Thus this alternative was also eliminated from detailed analysis.

3.0 DESCRIPTION of the AFFECTED ENVIRONMENT and ASSOCIATED ENVIRONMENTAL CONSEQUENCES

3.1 General Description of the Project Area

The project area occurs in the Thirty Mile Spring and South Butte Grazing Allotments, in the southeast portion of Butte Valley, within the Butte Valley Watershed. The Butte Watershed is approximately 426,000 acres. The Thirty Mile Spring Allotment is approximately 178,000 public land acres while the South Butte Allotment is about 26,000 acres. The project area is 23,277 acres, and treatments are expected to occur over 4,400 acres, but no more than 7,000 acres. Maps 1 and 2 indicate target treatment areas (approximately 4,400 acres); however, additional areas may be identified within the analysis area after initial treatments have been conducted. Elevations in the project area range from approximately 6,500 to 8,000 feet and slopes range from an estimated 0 to 40 percent. Annual precipitation average approximately 6 to 12 inches. Butte Valley, Piscevich Summit, and Combs Creek are prominent topographic features in the area. A portion of the Thirty Mile Spring Allotment is within the Triple B Wild Horse Herd Management Area. The Butte Valley Watershed is located within sage-grouse, deer, elk, and antelope habitat. Salt desert shrub plant communities occur in the lower portions of the watershed while sagebrush/perennial grass communities, mountain brush communities, and pinyon/juniper woodlands dominate the benches and higher elevation sites. The project treatments would focus on the sagebrush/perennial grass and mountain brush communities. The project is considered moderately departed from reference vegetation conditions, and is rated FRCC 2 (Appendix A, Map 3).

The project area is located within the Diamond, Quinn, and Butte Valley/Buck Mountain/White Pine Range sage-grouse population management units (PMU). According to NDOW, there is one inactive lek and one of unknown status within three miles of the project boundary. The project area also contains sage-grouse nesting, summer and winter habitat. There are two known raptor nest sites in the project area, one a golden eagle, last checked in 1980 and one a long-eared owl last checked in 1978. The project area occurs within the NDOW hunting management area 121.

3.2 Resources/Concerns Considered for Analysis

Internal scoping was conducted by a BLM interdisciplinary (ID) team on April 26, 2010 and October 12, 2010 to determine the potential effects of the proposed action. Potential effects to the following resources/concerns were evaluated in accordance with criteria listed in the BLM NEPA Handbook (2008) to determine if detailed analysis is required. Consideration of some of the resources/concerns is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other resources/concerns are considered in light of issues identified during internal scoping or identified through public involvement.

Table 3.2.1. Resources/Concerns Considered and Rationale for Detailed Analysis or rational for dismissal from further analysis.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	Air quality in the area is generally good except for occasional dust storms. Short-term increase in dust during project implementation would be temporary, and would not approach a level that would exceed air quality standards. Detailed analysis is not required.
Areas of Critical Environmental Concern (ACEC)	No	Resource not present in the project area.
Cultural Resources	No	All treatments that create surface disturbance would be inventoried for cultural resources to identify eligible (Historic Properties) and sensitive sites prior to implementing treatments. Identified cultural resource sites would be recorded and evaluated to determine eligibility for the National Register of Historic Places. Eligible cultural resources would be avoided or impacts mitigated as necessary before any surface disturbing treatments (i.e., mechanical thinning, chaining) are initiated.
Environmental Justice	No	No environmental justice issues are present at or near the project area. No minority or low income populations would be unduly affected by the proposed action.
Fire and Hazardous Fuel	Yes	Effects analyzed in the EA.
Fish and Wildlife	Yes	Impacts from vegetation treatments on Fish and Wildlife are analyzed on pages 4.6-10 through 4.6-12 in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (EIS; November 2007). It is expected that wildlife habitat would be enhanced by appropriate native vegetation and ground cover and a better quantity, quality, and availability of forage resulting from the Proposed Action. Detailed analysis is provided below.
Floodplains	No	The project area is not within a floodplain. Detailed analysis is not required.
Grazing Uses	No	In the short term, the habitat enhancement and fuels reduction project would be rested from livestock grazing until vegetative objectives are met. In the long term, grazing distribution would be more dispersed as forage could be available across more areas of the allotment. Grazing would continue in about the same manner and scope as current use. Further analysis is not necessary.

Migratory Birds	No	A list of migratory birds has been identified for the proposed action area and included in Appendix C. Project implementation would occur outside of the designated breeding/nesting period of April 15 through July 15 whenever possible. If treatments are conducted during the designated migratory bird nesting season some active nests or eggs could be destroyed. Long-term improvement of the habitat for such birds is thought to offset such a loss.
Mineral Resources	No	There would be no modifications to mineral resources through the proposed action, therefore no direct or cumulative impacts would occur to minerals.
Native American Religious Concerns	No	No concerns were identified through a coordination letter sent in June, 2010. Direct impacts and cumulative impacts would not occur because there were no identified concerns through coordination.
Noxious and Invasive Weed Management	Yes	The habitat improvement and fuels reduction project has the potential to spread noxious and non-native, invasive weeds. Detailed analysis required.
Prime or Unique Farmlands	No	There are approximately 570 acres of potential Prime Farmland soils in the northern portion of the project area. This soil association, if irrigated could be considered Prime Farmland. The Proposed Action would not change the physical or chemical characteristics of the soil association or its potential to become Prime Farmland. Detailed analysis is not required.
Recreation Uses	No	Implementing the sagebrush restoration project would result in negligible impacts to recreation uses. No detailed analysis required.
Social and Economic Values	No	Implementing the proposed project would have no or negligible effect to the permittee or the county. The permittee would be required to adjust grazing practices in the short term to provide range rest for the treated area. Some local contractors may benefit by providing services to implement the proposed action.
Soil Resources	Yes	Effects analyzed in the EA (Section 4.4).
Special Status Animal Species other than those listed or proposed by the Fish and Wildlife Service (FWS) as Threatened or Endangered	Yes	Impacts from livestock grazing on selected Special Status Species were analyzed on pages 4.7-28 through 4.7-32 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007). The greater sage-grouse is a high-profile sensitive species currently considered to be warranted for listing as Threatened or Endangered but for which listing is precluded by

		other species of higher priority (Federal Register 2010). Since one of the primary objectives of this project is to improve habitat for sage-grouse, a detailed analysis is provided below for Special Status Animal Species. Other Special Status Animal Species are also addressed in the detailed analysis.
Special Status Plant Species	No	No Special Status Plant Species are known to occur within the project area.
FWS Listed or proposed for listing Threatened or Endangered Species or critical habitat.	No	Threatened, Endangered, or Proposed species are not known to be present in the proposed action area.
Vegetative Resources	Yes	The proposed project would have a direct effect to vegetative resources in both the short and long term, thus a detailed analysis is provided below.
Visual Resource Management (VRM)	No	The proposed action falls within VRM Classes III & IV. In the short-term the proposed project would not be consistent with Class III objectives. However, in the long-term, the overall effect of the proposed action would improve vegetative conditions within the area; adding to the visual resources landscape, which would meet and exceed the VRM Class III objectives. Therefore, the proposed action meets the objectives for VRM Classes III & IV, overall.
Wastes, Hazardous or Solid	No	No hazardous or solid wastes are known to exist in the project area nor would be introduced by the proposed action.
Water Quality, Drinking/Ground	No	Water sources in the analysis area are not included on the State of Nevada 303 (d) list of impaired waters. No drinking water sources occur on public land. Domestic water wells very likely occur associated with ranch facilities on private land. The Proposed Action would not affect groundwater sources. The Proposed Action would not lead to changes in riparian streambank condition sufficient to affect water quality. Detailed analysis is not required.
Water Resources (water rights)	No	Water sources and water rights would not be affected. Detailed analysis not required.
Wetlands/Riparian Areas	Yes	Effects analyzed in the EA (Section 4.7).
Wilderness	No	The project area does not occur within a wilderness area or wilderness study area. The Bristlecone Wilderness Area occurs approximately two miles east of the treatment area. Detailed analysis is not required.
Special Designations other than Designated Wilderness	No	No Special Designations occur within the project area.

Wild Horses	No	Approximately 500 acres in the north portion of the project analysis area occurs within the Triple B Wild Horse Herd Management Area. Wild horses would be temporarily disturbed during vegetation treatment activities that occur within this area. No direct or indirect effects would occur to wild horses. Detailed analysis is not required.
Wild and Scenic Rivers	No	There are no wild and scenic rivers within the project area.

3.3 Affected Environment and Environmental Consequences – Detailed Analysis

A detailed analysis is presented below for resources which have been labeled "yes" in Table 3.2.1 above as requiring further analysis. These resources were identified as issues during scoping, during the BLM resource specialist internal review period, or require detailed analysis according to law, statute, Executive Orders, or BLM policy. These resources are 3.3.1 Fire and Hazardous Fuels, 3.3.2 Fish and Wildlife, 3.3.3 Noxious and Non-native, Invasive Weeds, 3.3.4 Soil Resources, 3.3.5 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered, 3.3.6 Vegetative Resources, and 3.3.7 Wetland/Riparian Areas.

3.3.1 Fire and Hazardous Fuels

Affected Environment

Historically, the Butte Valley area and adjacent mountains were fire adapted. Fire played a regular and natural disturbance role in the ecosystem. Fire exclusion and suppression has occurred throughout the west since Europeans arrived, which is generally accepted to have affected the natural role of fire. Vegetation volume has increased in the project area, and vegetative composition has changed as a result of natural disturbance alteration. Mature and/or decadent large sagebrush shrubs with increasing dead or live woody material and dense stands of pinyon and juniper trees with decreasing understories of native herbaceous grasses and forbs now characterize much of the landscape. Fires prior to European settlement once carried through fine herbaceous fuels and created structural and age class diversity in sagebrush and woodland sites. According to Miller and Tausch (2001), infrequent fires in the past 130 years have allowed pinyon and juniper to establish in sagebrush communities. This has led to an accumulation of fuel, increased tree stand densities, and has altered the fire regime condition classes. This fuel type presents a unique fire hazard as the potential for crown fire is higher. Crown fires typically burn at higher wind speeds and are more difficult to control. When this occurs, fires are usually stand replacing with crown fire domination. When fires occur with little wind, as when a high pressure system is in place over the area, fires will typically burn minimal trees.

Fire history and fire effects in the Great Basin are a vital component of resource health. There is evidence to support the existence of repeated wildland fires in eastern Nevada. Wildland fires would burn with mixed severity in sagebrush and pinyon-juniper communities (Landfire BPS Model 1210190). Current fire behavior in these communities result in stand replacement, hot fires due to heavy fuel load accumulation. Absence of fire has led to high fuel load accumulation, increased tree densities and altered the fire regime condition class. The area is rated FRCC 2.

3.3.1.1 Fire and Hazardous Fuels

Environmental Consequences – Proposed Action

In areas that are mechanically treated to reduce or thin tree density, or in areas that are manually thinned with chain saws, resulting wildfire behavior would decrease as a result of reduced fuel loading and continuity. Future natural fires would be expected to be less intense, smaller in size and of mixed severity. Smaller wildfires would be easier to manage, reducing the risk to multiple natural resources, private lands, private withholdings, physical structures associated with Right-of-Ways and aesthetic values. The danger of large, catastrophic, uncontrolled wildfires would be reduced.

Implementation of the proposed project should bring the FRCC within the natural (historic) range and meet FRCC 1 by reducing fuel loading and continuity, and establishing more perennial grass and forb species resembling the ecological site potential. Studies have shown that fuels treatments conducted prior to a large, uncontrolled fire event reduce fire burn severity and extreme fire behavior (Schoennagel et al, 2004).

3.3.1.2 Fire and Hazardous Fuels

Environmental Consequences – No Action Alternative

Under the No Action Alternative, the vegetation treatment would not occur and fuel loading would be over abundant and possibly increase, which would also increase fire behavior and resulting stand replacing fires. The risk of a large, uncontrolled wildfire would remain high, with the consequent likelihood of poor native vegetation recovery and spread of invasive plant species. In comparison to the Proposed Action, the No Action Alternative would result in the highest fuel loading and fire intensity potential in the long-term.

3.3.2 Fish and Wildlife

Affected Environment

All of the proposed project area is year round Rocky Mountain elk and mule deer habitat, while the northern portion is pronghorn antelope habitat and the southern portion is unoccupied Rocky Mountain bighorn sheep habitat. There is no crucial habitat for any of these species but a deer migration corridor exists throughout most of the area. The area also provides habitat for coyotes, rabbits, badgers, bobcats, fox, chukar partridge, sagebrush obligate birds, and other small mammals and reptiles. The understory component of native shrubs, grasses, and forbs are important for food and nesting/hiding cover for a wide variety of wildlife species.

3.3.2.1 Fish and Wildlife

Environmental Consequences – Proposed Action

It is expected that wildlife habitat would be maintained or enhanced by re-establishing appropriate native vegetation and ground cover. Better quantity, quality, and availability of habitat components for feed and cover, including bird nesting cover, would result from the Proposed Action.

3.3.2.2 Fish and Wildlife

Environmental Consequences – No Action Alternative

The degradation of understory vegetation components would continue, which would lower habitat conditions for wildlife. Feeding, nesting cover, etc. would continue to decline for the various wildlife species in the area.

3.3.3 Noxious Weeds and Non-native Invasives

Affected Environment

The following noxious weeds are documented in the project area: Musk thistle (*Carduus nutans*), black henbane (*Hyoscyamus niger),* hoary cress *(Lepidium draba),* and Scotch thistle *(Onopordum acanthium).* All of these sites are on the Ely District treatment schedule except the hoary cress infestation at Cedar Spring. Also documented in the project area is the non-native invasive bull thistle *(Cirsium vulgare)* and cheatgrass (*Bromus tectorum*) scattered along roads and in some upland areas of the project area. A Noxious and Invasive Weed Risk Assessment was completed for this project and can be found in Appendix B.

3.3.3.1 Noxious Weeds and Non-native Invasives

Environmental Consequences – Proposed Action

Scotch thistle and musk thistle are found in drainages or near water sources, and are not prone to spread into uplands in this area. Black henbane, bull thistle, cheatgrass and hoary cress are found along road ways, and in normal or above normal precipitation years could spread into uplands in a disturbed area. Any increase of cheatgrass could alter the fire regime in the area, depending on the density. The design features of the proposed action include preventive measures during implementation; treating areas where weeds spread; and improving native vegetation. These measures would decrease impacts by weeds and invasive species. Over a period of time as the native plant communities recover from vegetation treatment, they would be more vigorous, more resilient, and resistant to weed spread, especially following a disturbance such as wild fire.

3.3.3.2 Noxious Weeds and Non-native Invasives

Environmental Consequences – No Action Alternative

Under the no action alternative no disturbance would occur and weeds would not spread into the uplands due to disturbance. The area could remain static with regard to weed spread until a natural disturbance such as fire occurred. Following a fire, the area would be prone to cheatgrass invasion and the spread of noxious weeds into the upland sites.

Under the no action alternative, the sagebrush, pinyon and juniper plant communities would be expected to remain in a decadent and shrub or tree dominant state, and not resilient or resistant to noxious or invasive species spread. Compared to the Proposed Action, the No Action Alternative would result in a plant community less able to compete against noxious or invasive species. The No Action Alternative increases the risk of a future more intense, severe, destructive wildfire that would be more likely to spread invasive species.

3.3.4 Soil Resources

Affected Environment

The soils in the project area can be characterized best by dividing the preliminary treatment areas into three locations; east, south, and west. The means to describe soils and show differences between treatment areas was chosen to be the key soil physical descriptors, texture and structure.

The eastern area is composed of seven soil associations which show similarities in texture but tended to group into three categories with structure. Soil textures were uniformly in the very gravelly loam sizes. Soil structures were platy (64% of the area), angular block to platy (28% of the area), and subangular blocky (8% of the area).

The southern area is composed of one soil association with soil textures typically of the very cobbly loam size class. Soil structure at the surface to a depth of 12 inches were found to be subangular blocky and angular blocky below.

The western area is composed of two soil associations with very different soil characteristics. Soil textures vary from very gravelly silty loam to very cobbly loam. Structure for the majority of the area (92%) is platy at the surface and angular blocky to a depth of two feet. The remaining 8% of the area has a soil structure of subangular blocky from the surface to two feet deep.

3.3.4.1 Soil Resources

Environmental Consequences – Proposed Action

Soil compaction and surface horizon displacement are the two disturbance mechanisms that may occur given the potential treatment types. The soil textures and structures show that compaction concerns may not be an issue with lower pressure equipment, hand tools, or single-pass heavier equipment. Coarse textured materials which already exhibit platy structure would not likely undergo further pressure response that is, it would not likely further compress. The coarse materials that are formed into angular or subangular block structures would be able to withstand some surface travel by equipment and not show signs of excessive soil compaction meaning a substantive increase in bulk density to the point of affecting porosity, hydraulic conductivity, etc. Multiple surface passes by heavy equipment however, could break-up or compress the angular and subangular soil particles and thus, affect soil physical characteristics which control plant growth, etc. All preliminary treatment areas possess loamy soils, no matter how coarse their texture, and as such, could be affected by equipment operation to the point of compaction which may result in stunted plant growth along non-road, heavy equipment paths and trails. The compacted paths could become conduits for erosion if soil is exposed and a localized precipitation event occurred prior to re-vegetation.

Equipment operation may also disturb soil by displacing the organic horizon or uppermost mineral horizon during turns or when wheels or tracks lose traction. This displacement changes the arrangement of soil horizons and may expose soils and lead to erosion or loss of soil productivity. Once understory vegetation establishes, erosion potential should be no more than currently exists.

3.3.4.2 Soil Resources

Environmental Consequences – No Action Alternative

The lack of treatments would not affect the soil resource in the short term. Erosion potential may increase across the area if understory plant resources continue to decline.

3.3.5 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

Affected Environment

The greater sage-grouse is a high-profile sensitive species that has recently undergone review for Threatened or Endangered Status (Federal Register 2008) and is currently considered to be warranted for listing as Threatened or Endangered but for which listing is precluded by other species of higher priority (Federal Register 2010). It has been identified as an "umbrella" species by the Ely District BLM, and chosen to represent the habitat needs of the sagebrush (*Artemisia* spp.) obligate or sagebrush/woodland dependent guild (BLM 2007; p. 4.7-10). There are no active sage-grouse leks within the project area. There are 2 inactive or unknown leks within three miles of the perimeter of the project area. Sage-grouse often nest in suitable habitat within three miles of a lek site. In addition, NDOW has focused sage-grouse brood surveys in the project analysis area and considers

the area important for sage-grouse. The project area contains important nesting or brood rearing habitat as well as winter range.

Much of the sage-grouse nesting or brood rearing habitat as well as some of the winter range is currently characterized by a dense canopy of pinyon and juniper trees with a decadent understory of native sagebrush shrubs and low vigor native grasses and forbs.

The White Pine County sage-grouse conservation plan (hereafter termed the Plan; 2004) identified approximately 49% (950,773 ac) of potential (1,870,317 ac) sage-grouse habitat within the Butte Valley/Buck Mountain/White Pine Range Population Management Unit (PMU) as not meeting the sage-grouse habitat guideline standards (Connelly et al. 2000). In the sagebrush habitat rating system used in the Plan, one category, termed "R2", is defined as "Areas with inadequate grass/forb understory composition, adequate sagebrush cover". The Plan estimated approximately 708,146 acres of sagebrush habitat in this category throughout this PMU, which includes the project area. Under the sage-grouse guidelines, the herbaceous grass and forb component combined should comprise at least 15% of the vegetative community by cover, and sagebrush should comprise at least 15-25% of vegetative cover (Connelly et al. 2000). Based on professional observations, the sagebrush sites within the project area are generally not meeting the sagebrush cover or herbaceous understory cover requirements set forth within the sage-grouse guidelines. Site specific evaluation of sage-grouse habitat guidelines should be tempered with consideration of site potentials described in ecological site descriptions for the sites.

Pygmy rabbits were surveyed within their historic range in Nevada between 2003 and 2006 (Larrucea and Brussard 2008). Larrucea and Brussard (2008) found current populations of pygmy rabbits throughout all of the species' historic range in Nevada, including one within the proposed project site on private land. Preferred habitat for the pygmy rabbit is often found along washes or drainages where soils are deep and sagebrush is tall. Avoiding these areas as incorporated in the proposed action will help to protect any currently unknown populations of pygmy rabbits. Based on soil type (deep loam), preferred vegetation characteristics (tall, dense sagebrush), and professional observations in the area, a small portion of the project area (about 2 acres or less than 0.5% of the proposed treated areas) may contain potential pygmy rabbit habitat.

Raptors, such as the ferruginous hawk, may nest in trees, on cliffs, occasionally on the ground or in underground burrows. Two historical nests have been found within the project area, Golden eagle *(Aquila chrysaetos)* and Long-eared owl *(Asio otus)*.

3.3.5.1 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

Environmental Consequences – Proposed Action

The vegetation treatment is designed to improve sagebrush vegetative community conditions and habitat, particularly for the herbaceous understory. These changes should benefit greater sage-grouse populations within the project area.

Under the Proposed Action, tall dense sagebrush areas that are favored by pygmy rabbits would be avoided. Removing pinyon and juniper trees from mountain sagebrush ecological sites would tend to make better nesting and foraging conditions within the project area, and could result in better production of large sagebrush shrubs in the long term. This change would favor pygmy rabbits, which are less likely to use sagebrush range with established pinyon and juniper trees. Assuming there are extant populations

of pygmy rabbits within the project area, the vegetative treatment is designed to improve vegetative conditions and thus should benefit those potential populations.

Because the proposed action is designed to increase vegetation understory diversity, the small mammal species upon which the ferruginous hawk depends on for food should also benefit, particularly from a better herbaceous understory. Any raptor nests that are identified in the project area would be protected with a half mile buffer during their nesting season.

The proposed action would not contribute to the need to list any Special Status Species as threatened or endangered.

3.3.5.2 Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

Environmental Consequences – No Action Alternative

Under the No Action Alternative, the vegetation treatment would not occur. The sagebrush plant communities would likely remain in a decadent and shrub dominant state, with less than desirable understory. Vegetation production, cover, vigor, structure, diversity, and seed production would be expected to continue as undesirable for sage-grouse. Compared to the Proposed Action, the No Action Alternative would result in a plant community less desirable for sage-grouse habitat.

Under the No Action Alternative, resource conditions are expected to stay the same for a short term period. Over the long-term, the continued establishment and increased density of pinyon and juniper into sagebrush communities would reduce the favorability of habitat for the pygmy rabbit. This could be detrimental to the pygmy rabbit. The increasing pinyon and juniper and decadent stands of sagebrush communities could result in less productive understory. Any large wildfire could have the potential to eliminate large acreages of existing potential habitat for the pygmy rabbit if fuel loading is not reduced.

3.3.6 Vegetative Resources

Affected Environment

The primary vegetation types within the project area are mountain big sagebrush, black sagebrush, and mountain brush plant communities and pinyon-juniper woodlands. Cool-season native perennial bunchgrasses within the project area include species such as Indian ricegrass, needleandthread, bluebunch wheatgrass, Thurber's needlegrass, and bottlebrush squirreltail. Native shrubs include sagebrush, antelope bitterbrush, serviceberry, snowberry, four wing saltbush, and Douglas' or rubber rabbitbrush. Native forbs include arrowleaf balsamroot, tapertip hawksbeard, globemallow, and phlox species. Native trees include singleleaf pinyon pine, Utah juniper, mountain-mahogany, willow, and chokecherry. Some cheatgrass does occur within the project area. Many of the native shrubs or small trees beneath dense pinyon and juniper tree canopy are decadent, and display low vigor and poor nutritional value for browsers. Pinyon and juniper is becoming established in sagebrush habitats and in riparian areas within the proposed treatment area, which were historically comprised of native shrubs and grasses. Rubber rabbitbrush and other large shrubs are increasing on an area of about five acres along the Combs Creek riparian corridor, which was historically comprised of more desirable native riparian grasses such as sedge, rush, and spike-rush.

In terms of the State and Transition Model, the sagebrush plant communities in the project area have crossed a threshold and are in a sagebrush dominant state, with sagebrush canopy cover generally above 35%. The herbaceous understory of native grasses and forbs has declined radically from the potential natural community.

3.3.6.1 Vegetative Resources

Environmental Consequences – Proposed Action

The proposed vegetation treatment is expected to move the vegetation towards a healthier ecological condition with a more productive component of native grasses, forbs, and shrubs. Native shrubs would progress towards a more vigorous condition exhibiting canopy cover that will co-exist with a diverse grass and forb understory. The timing of recovery depends to some extent on annual climate conditions. Resting the seeded portions of the treated areas from livestock grazing would give seeds a chance to sprout, vegetation a chance to grow, and provide soil protection, and would give existing established grass and forb species an opportunity to complete their growing cycles. Implementing the Proposed Action would also improve the ability of the natural vegetation community to compete with and prevent noxious weed and invasive species establishment through the development of a more vigorous, diverse and productive perennial vegetative community.

Residual woody vegetation which would consist of slash/biomass created from the various methods of vegetation treatment would provide protection to regenerating grasses and sagebrush. The decomposition of woody plant material would also provide nutrients that would decompose within the soil, and become available for understory and existing shrub species. This nutrient availability would assist with the recruitment, establishment and long-term viability of the grass and shrub community, as well as provide protection to the soil resource. Organic matter would minimize the opening of mineral cycles (particularly nitrogen) which promote the establishment and perpetuation of introduced annuals.

3.3.6.2 Vegetative Resources

Environmental Consequences – No Action Alternative

Vegetative conditions are expected to remain the same for the short term and decline over the long-term. The health, vigor, cover, recruitment and production of native perennial grasses, forbs, and shrubs would decline in the long-term due to a combination of factors that could include drought, competition for nutrients, sunlight, and water with older, decadent shrubs and the establishment of pinyon and juniper trees in sagebrush habitat. Pinyon and juniper establishment onto sagebrush ecological sites would continue and the older, decadent even-aged shrub communities would further decline in health and vigor affecting the recruitment and establishment of new grasses, forbs and shrubs. Progress would not be made towards implementing the desired vegetative states for sagebrush ecological sites as outlined in the Resource Management Plan for the Ely District BLM. Vegetation communities would remain departed from the reference condition and fire regime condition class.

Progress would not be made towards implementing the vegetative management decisions and fuels management decisions from the Ely District Record of Decision /Approved Resource Management Plan (ROD/RMP). Both live and dead tree fuels would continue to build up in the area, posing the risk of a catastrophic fire and inappropriate vegetation recovery following the fire.

3.3.7 Wetlands/Riparian Areas

Affected Environment

There are many spring or seep water sources in the project analysis area that occur on both public and private land. The springs on public land are typically one quarter acre or less in size including riparian habitat. Several of these small riparian areas have a dense canopy overstory comprised of pinyon pine and juniper trees. Two perennial creeks flow northerly through the project area and possess adjacent riparian areas; Combs Creek in the eastern part of the project area and Bothwick

Creek in the center part. Rock Creek, an intermittent system with riparian habitat, flows northwesterly and lies in the western part of the project area. A portion of Combs Creek has become shrub dominated by large shrubs such as rubber rabbitbrush, greasewood, and big sagebrush.

The riparian potential for the spring systems are sedge/grass habitats. The riparian potential for the creek systems vary from tree/shrub/grass for Combs Creek and possibly Bothwick Creek to shrub/grass for Rock Creek.

3.3.7.1 Wetlands/Riparian Areas

Environmental Consequences – Proposed Action

The Proposed Action would remove pinyon pine and juniper trees using chain saws near several spring sources and along Combs Creek and use herbicide to remove rabbitbrush from sites near Combs Creek. The possibility exists by opening the canopy above lentic riparian systems that two things may occur that would allow these small systems to expand; more light would reach the plants and more water may be made available for riparian plant usage. Removal of canopy along small reaches of lotic systems like Combs Creek would not be expected to have an effect on water quantity but would certainly increase light and thus, energy that reaches riparian vegetation along the creek. The removal of rabbitbrush may allow riparian vegetation to become established within the five acre treatment area along Combs Creek. Increasing riparian areas also increase the water retention ability of streamside soils and the soil's capability to release water back to the creek to maintain base flows longer into the water year.

The risk of sedimentation to stream or spring riparian systems due to tree or shrub removal should be minimal due to the design features built into the Proposed Action and the filtering ability of existing riparian vegetation. Retaining downed trees within spring systems provides both habitat and physical protection for the riparian area. Maintaining streambank trees along Combs Creek would assure system stability by retaining rootmass and riparian soils.

3.3.7.2 Wetlands/Riparian Areas

Environmental Consequences – No Action Alternative

If the vegetation treatment project is not implemented upland and forest vegetation species would continue to establish into riparian habitats and may even expand. This could reduce water availability to riparian vegetation.

4.0 Cumulative Impacts

The purpose of the cumulative analysis in the EA is to evaluate the significance of the Proposed Action's contributions to cumulative impacts. A cumulative impact is defined under federal regulations as follows:

Cumulative impacts are impacts to the environment or resource values that result from the incremental or combined impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively important actions taking place over a period of time (40 CFR 1508.7).

According to the 1994 BLM publication (WO-IB-94-310) "Guidelines for Assessing and Documenting Cumulative Impacts," the cumulative analysis can be focused on those issues and

resource values identified during scoping that are of major importance. The preliminary major importance issues or resource values identified during the EA scoping period were migratory birds, cultural resources, vegetation, and special status species including sage-grouse. Fire and Hazardous Fuels, Fish and Wildlife, Noxious and Non-native, Invasive Weeds, Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered, and Vegetative Resources are discussed below, which were identified in the Environmental Effects table (Table 3.2.1) as requiring further analysis. The Cumulative Effects Study Area (CESA) for this project is defined as the south portion of the Butte Watershed (about 200,000 acres).

Additionally, the guidance provided in The National BLM NEPA Handbook H-1790-1 (2008), for analyzing cumulative effects issues states, "determine which of the issues identified for analysis may involve a cumulative effect with other past, present, or reasonably foreseeable future actions. If the proposed action and alternatives would have no direct or indirect effects on a resource, you do not need a cumulative effects analysis on that resource" (p.57).

A comprehensive cumulative impacts analysis can be found on pages 4.28-1 through 4.36-1 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007), which this EA is tiered.

A general discussion of past, present, and reasonably foreseeable future actions is presented below.

4.1 Past Actions

There have been limited previous actions occurring in the CESA for this habitat improvement and fuels reduction project. The project area is fairly remote and isolated. Historical mineral mining occurred at the Golden Butte Mine, approximately 16 miles north of the project area. Two main county roads (rights of way) occur in the southern portion of the Butte Watershed. One or two small earthen reservoirs totaling less than five acres have been constructed over the years. The reservoirs are for livestock, wild horses, and wildlife and do not contain fish or other important aquatic vegetative or invertebrate species. One or two small gravel pits have been authorized in the CESA over the years. Hunting, camping, trapping, wildlife viewing, off highway vehicle (OHV) use, and other related recreational activities have been common but not frequent in the area. Woodcutting and pinyon nut gathering have been infrequent. Small two track roads associated with these activities are not extensive and have not altered the landscape. Wildlife use has been common but not intensive in the area and has not fundamentally altered the plant communities. Wildfires have occurred in South Butte Valley. BLM files show a record of the unnamed fire (4015) that burned approximately 697 acres of native rangelands in 1981, the unnamed fire (K051) that burned approximately 85 acres of native rangelands in 1984, and the unnamed fire (K142) that burned approximately 620 acres of native rangelands in 1986. Historical cattle and sheep use from about 1870 to current, and wild horse use have been common in the area, and wild horse gathers have occurred regularly. The last wild horse gather in the area occurred in August, 2010. Drought has been common in the area. A grazing permit for cattle and sheep grazing was recently renewed for the Thirty Mile Spring Grazing Allotment.

There are approximately 2,000 acres of crested wheatgrass seedings in the south portion of the CESA, dating from about 1960, that occur about three to four miles west of the project area. Range improvements have been developed over the years, which include water wells for grazing, two allotment boundary fences, and spring developments.

4.2 Present Actions

Current projects or activities in the CESA are limited. Mineral exploration has been initiated at the Limo Butte Project near the old Golden Butte Mine. Hunting, camping, trapping, wildlife viewing, off highway vehicle use, woodcutting, pinyon nut gathering, and related human activities continue to occur and are dispersed throughout the area. The Silver State Trail route Option A would occur in Butte Valley. The Silver State Trail Feasibilty Study has been completed, public coordination is ongoing, with a decision expected to implement a designated trail in the near future. Wildlife use continues in the area in the same manner and scope as past use. Sage-grouse are known to occupy the CESA. BLM files indicate active sage-grouse leks occur about eight miles west of the project area while inactive or unknown status leks occur from two to four miles west of the project area. Cattle and sheep use is currently permitted in the CESA and one cattle grazing permit is in the renewal process on the South Butte and South Butte Seeding Grazing Allotments. Generally, four sheep bands trail through the CESA area on the Jakes Unit Trail, which occurs from one to two miles west of the project area. Sheep trail south through the area in November and north in March or April.

4.3 Reasonably Foreseeable Future Actions

A portion of the Southwest Intertie Project (SWIP) corridor traverses through the western and the very north portion of the project area and through southern Butte Valley. Currently, the southern portion of SWIP, the One Nevada Transmission Line (ONLINE) is being constructed. However, the ONLINE portion of the transmission line ends south of the CESA at US Highway 50. The northern portion of SWIP could be constructed in the future.

A pipeline and drift fence are currently proposed for the south end of Butte Valley to improve livestock distribution on the South Butte and Thirty Mile Spring Allotments.
There are no anticipated increases in recreational activities. Future wild horse gathers could occur for the Triple B Wild Horse Herd Management Area (HMA). The next wild horse gather for this HMA is currently not scheduled but could occur within the next six years.

Broad watershed assessment and evaluation of the Butte Watershed is expected to be completed by BLM within the next ten years. The watershed assessment will in part determine if changes in livestock management practices are needed to conform to the Standards and Guidelines for Rangeland Health. Additional range improvements may also be identified that would contribute towards Rangeland Health Standards. The assessment may also recommend additional sagebrush restoration treatments or other vegetation treatments such as tree thinning, prescribed fire, chaining, mowing, or spraying to improve rangeland ecological health and meet the vegetative objectives of the Ely District Resource Management Plan (August, 2008) and other national program priorities.

It is reasonable to expect that the habitat improvement and fuels reduction project as proposed by this EA would become approved and the project would be implemented. The seeded portions of the treated area would be rested from livestock grazing use for a minimum of two growing seasons or until vegetative objectives are achieved. Following the rest period, livestock grazing would continue in the project area in a manner similar to pre-treatment grazing. It is reasonable to expect that the grazing permits currently being renewed would become approved with new terms and conditions of grazing use.

4.4 Cumulative Effects Summary

Fire and Hazardous Fuels

Past actions include approximately 1,400 acres of wildfire, and approximately 2,000 acres of crested wheatgrass seedings. Past actions have altered FRCC within the watershed (historical heavy grazing, wild horses, drought, lack of natural wildfire, flooding). Implementation of the Proposed Action along with past, present and future actions is expected to result in less risk of catastrophic future wildfires. Implementation of the Proposed Action along with future wildfire events, wildland fire use for resource benefits, and fire rehabilitation would aid in achieving FRCC 1 within the watershed. Although future wildfire events, wildland fire use for resource benefits, and fire rehabilitation are foreseeable, it cannot be determined at this time how many could occur or how many acres could be affected. Presently, there are no additional fuels or vegetation treatment activities planned within the south portion of the Butte Watershed (200,000 acres).

Fish and Wildlife

At the present time the level of human activities in the CESA is not considered to be greatly disturbing to general wildlife populations. Since the level is not expected to rise in the forseeable future, expectations are that this will continue. The proposed project is expected to make better habitat for the wildlife that currently or will continue to utilize the CESA.

Noxious Weeds and Non-native invasive species

The cumulative effects area for Invasive, Non-Native Species (Including Noxious Weeds) would also be the 200,000 acre area of South Butte Valley. Due to processes outlined in the design features, cumulative effects would minimize new infestations of noxious weeds. All future actions would require stipulations to minimize spread of noxious weeds.

Soil Resources

Past actions in this portion of the watershed have had negligible effects to soils in the area. There are no cumulative effects expected to soil resources in the CESA. Generally, soil compaction and soil horizon displacement, the disturbances that could occur as a result of the potential treatment types presented in this EA, are not identified as resource concerns in other areas of the CESA. Soils throughout the CESA are generally stable, not compacted, with the surface soil horizon ("A" horizon) in place, and functioning properly to recycle nutrients, store and release water, and grow appropriate native plant species.

Special Status Animal Species other than those listed or proposed by the FWS as Threatened or Endangered

Past actions in this portion of the watershed have been stated above. The overall cumulative impacts from past, present, and future actions are expected to improve habitat characteristics for the sage-grouse and pygmy rabbit. The treatments proposed in this EA would provide habitat for any actions that may reduce habitat through surface disturbance. Mitigation measures or Best Management Practices such as the timing of activities and surveying for populations of Sensitive Species would minimize any potential impacts from other projects which may be permitted in the CESA.

Vegetative Resources

Past actions in the CESA have been stated above, and these actions have collectively led to varying ecological conditions, but typified by dense stands of pinyon and juniper trees or dense stands of sagebrush with a declining understory of native grasses and forbs. Implementing the Proposed Action, combined with past actions, would be expected to provide a mosaic of differing ecological conditions over the CESA as a whole. This would tend to increase vegetative resiliency to future disturbances while reducing and minimizing cumulative effects associated with disturbances. The overall cumulative effects from all past, present and future actions are expected to move the vegetation communities within the CESA to a more natural range of variability.

Wetlands/Riparian Areas

There is only one small lentic riparian area in the CESA that is outside the 23,000 acre analysis area of this EA. That is Dry Canyon Spring, which occurs about six miles north of Combs Creek. Thus, there are no cumulative effects expected to the Wetlands/Riparian Areas Resource as a result of the Proposed Action in combination with past or future actions. Impacts to the riparian areas within the project area have been discussed previously, and are not expected to be different in light of past and future actions.

5.0 PROPOSED MITIGATION MEASURES

Design features have been incorporated into the Proposed Action to meet the purpose and need for the action and to minimize or limit the impacts or effects to natural resource values or other concerns. Design features include considerations for cultural resources; fire and hazardous fuels, mining claims, noxious weeds and non-native invasive species, sage-grouse and other sensitive animal species, soils, and vegetation. No further mitigation measures are proposed.

6.0 SUGGESTED MONITORING

Monitoring has been incorporated into the Proposed Action. Monitoring has been implemented to establish baseline vegetative conditions and to measure the effects of the proposed vegetation treatment over a period of time. Monitoring information would be collected, analyzed and interpreted using BLM approved methods. Monitoring data would be available for review at the BLM Egan Field Office.

7.0 CONSULTATION and COORDINATION

7.1 Tribes, Individuals, Organizations, or Agencies Consulted

A scoping letter concerning the project proposal was mailed to interested publics and grazing permittees on May 24, 2010. The letter requested that interested publics provide comments on the project and notify BLM if they wanted to remain on the mailing list to continue participating in the planning process. Comments were requested by June 30, 2010. Comments to the project were received from two individuals in response to the letter. One response letter objected to the project and expressed that no vegetation treatment should occur within 500 yards of private ground on Bothwick Creek. The other response letter commented that the project was long overdue however it

would be difficult to keep livestock off the treatment area for a minimum of two growing seasons or until vegetative objectives are achieved.

A letter was mailed to Native American Tribes regarding this action in June, 2010. Comments were received from the Confederated Tribes of the Goshute Reservation and the Paiute Indian Tribe of Utah. The comments indicated the two tribes had no issues, concerns, or objections to the project. The Duckwater Shoshone Tribe requested a tour of the project area, and requested consideration of cultural resources. This preliminary EA will be mailed to interested public for comments and input. The preliminary EA will also be placed on the Ely District website for solicitation of comments.

In addition, on March 23, 2010 BLM met with the Nevada Department of Wildlife (NDOW) concerning this project. NDOW submitted several comments related to improving sage-grouse and other wildlife habitat at the meeting. Additional comments regarding treatment design and priority locations were discussed during subsequent telephone conversations with NDOW.

As a result of comments received, the project was changed to eliminate any treatments within 500 yards of private property near Bothwick Creek. Cultural resources would be avoided during project implementation. Treatment design for sage-grouse benefit was also incorporated into the proposed action. Further information on consultation and coordination can be found in section 1.4 Relevant Issues and Internal Scoping/Public Scoping.

Public Notice of Availability

A preliminary EA for the Combs Creek Habitat Improvement and Fuels Reduction Project was sent to interested publics and posted on the BLM Ely District website on July 15, 2011 for review and comment. The comment period ended August 10, 2011. No comments were received during the comment period.

7.2 List of Preparers - BLM Egan Field Office Resource Specialists

Mark Lowrie	Rangeland Resources/Project Lead
Cody Coombs	Fuels Management/Project Lead
Gina Jones	Ecology/NEPA Coordination
Mindy Seal	Vegetation and Noxious and Invasive, Non-native Species
Mark D'Aversa	Soil, Water, Air, Wetlands and Riparian
Marian Lichtler	Wildlife, Special Status Species, Migratory Birds
Timothy Mabey	Rangeland Resources
Ruth Thompson	Wild Horse and Burro Resources
Leslie Riley	Cultural Resources
Chris Mayer	Supervisory Rangeland Management Specialist
Dave Jacobsen	Wilderness
Erin Rajala	Recreation, Visual Resources
Doris Metcalf	Lands
Miles Kreidler	Geology and Mineral Resources
Melanie Peterson	Hazardous and Solid Waste
Elvis Wall	Native American Concerns

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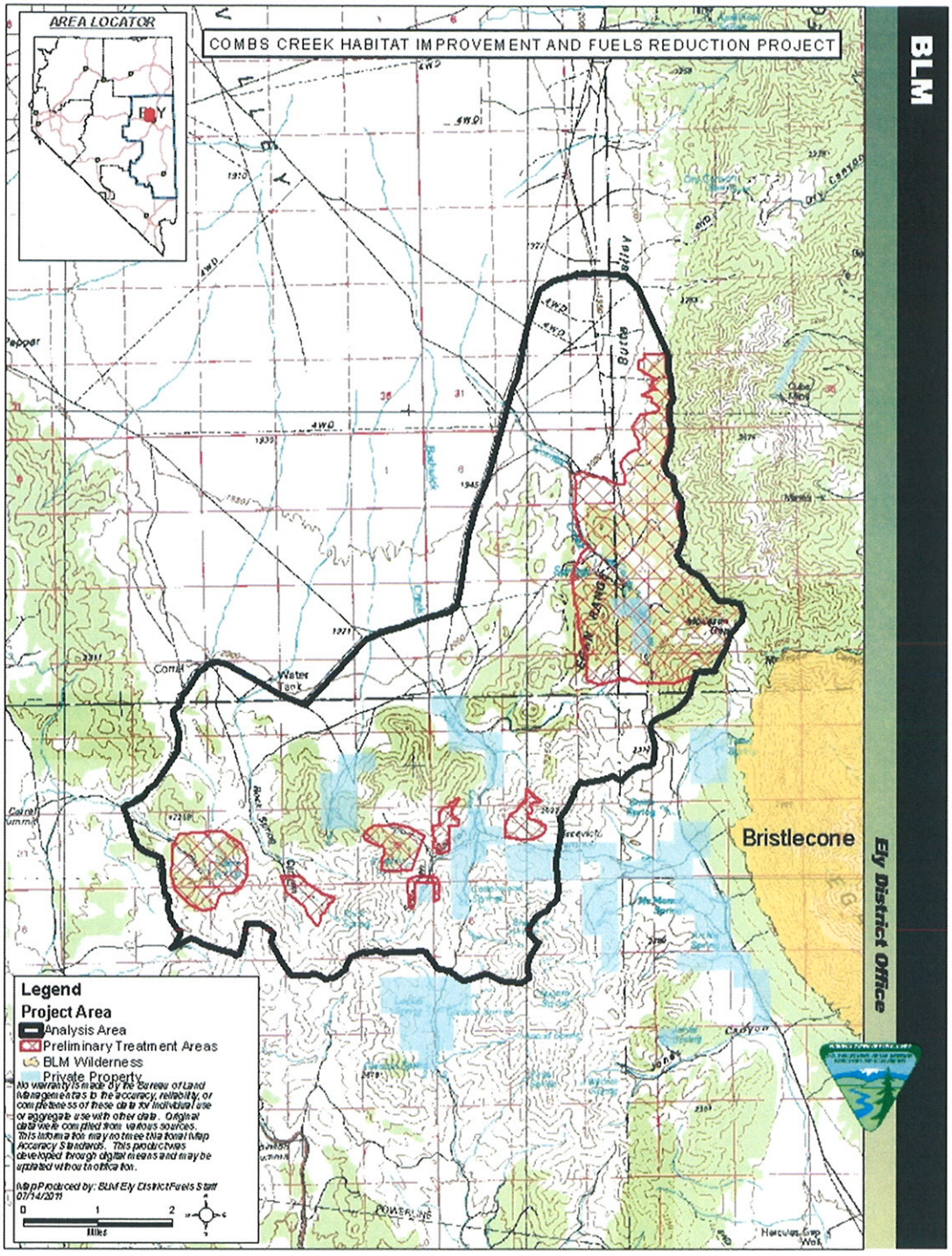
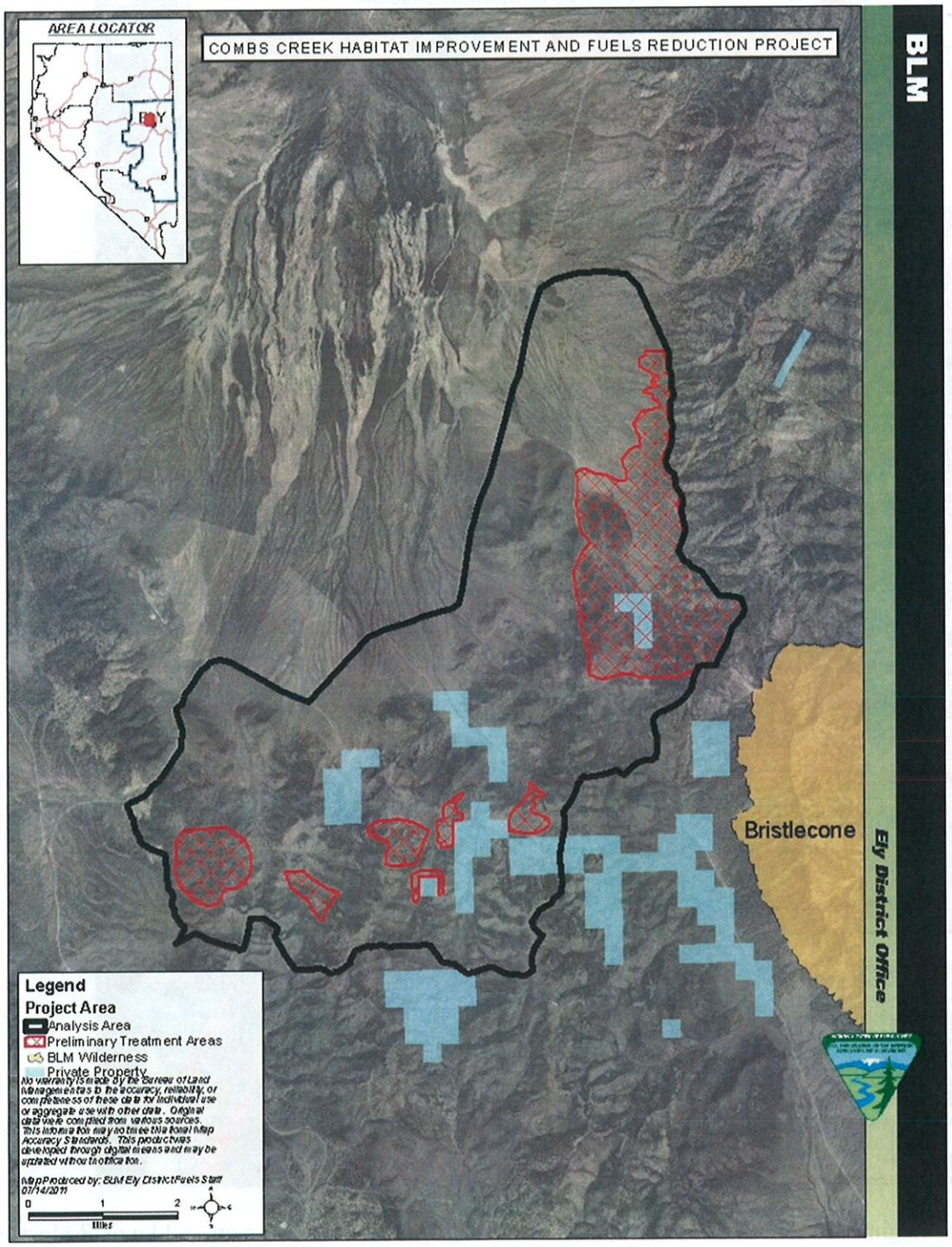
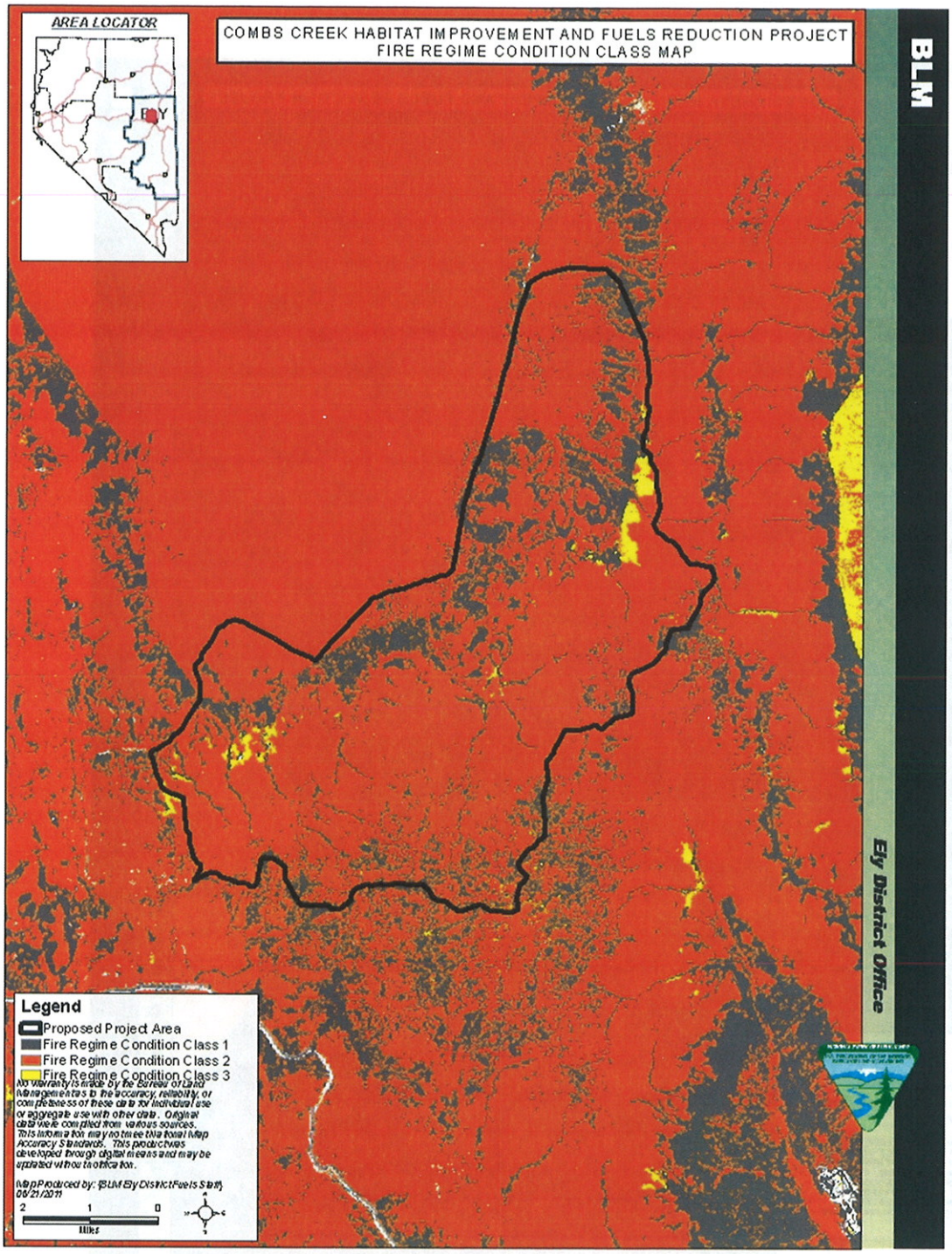
9.0 APPENDIX A-MAPS



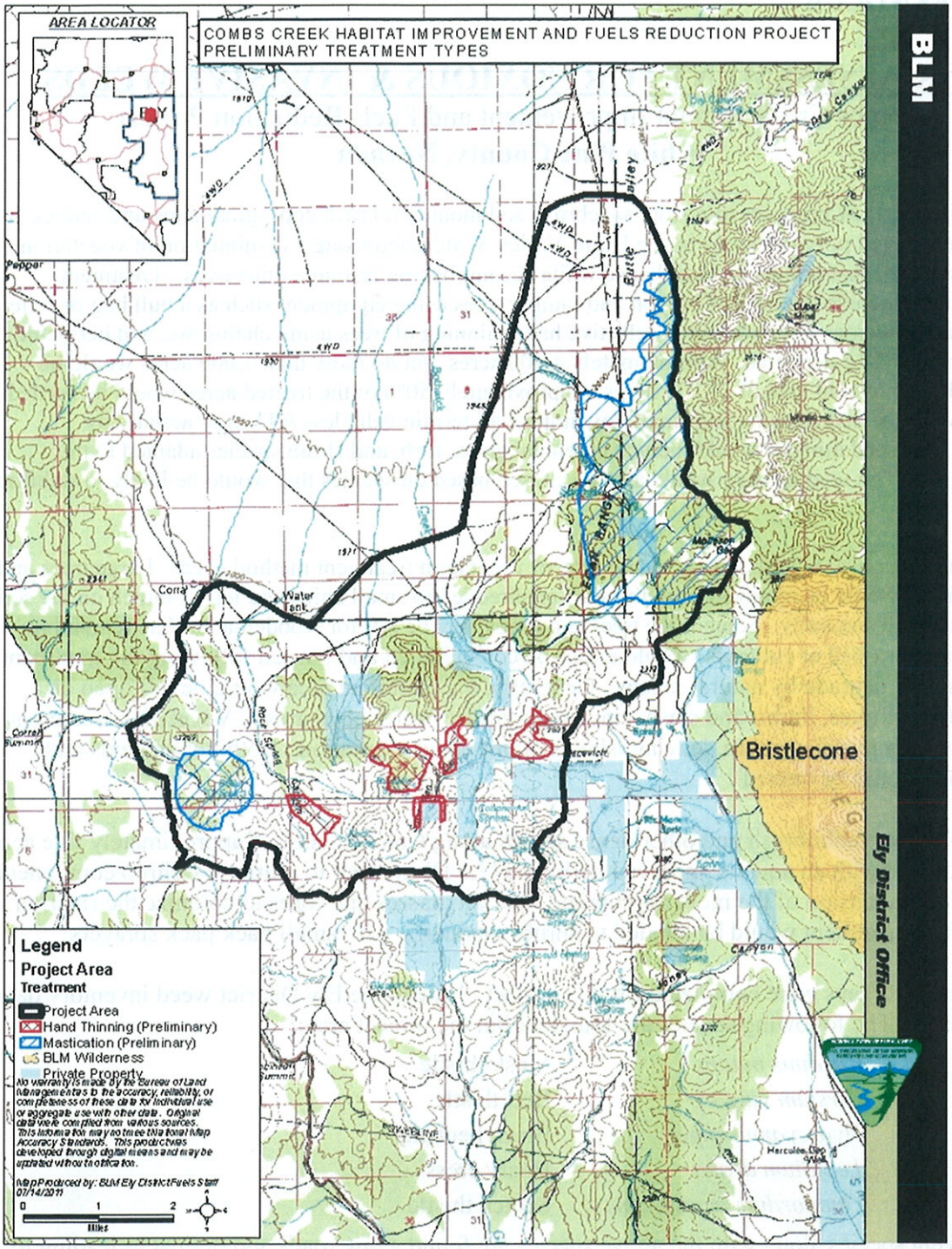
Map 1. Combs Creek Fuels Reduction and Habitat Improvement Project Analysis Area and Preliminary Treatment Areas



Map 2. Combs Creek Fuels Reduction and Habitat Improvement Project Analysis Area and Preliminary Treatment Areas—Aerial View



Map 3. Fire Regime Condition Class for the Combs Creek Habitat Improvement and Fuels Reduction Project



Map 4. Combs Creek Habitat Improvement and Fuels Reduction Project Suggested Preliminary Treatment Types

10.0 APPENDIX B

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Combs Creek Habitat Improvement and Fuels Reduction Project

White Pine County, Nevada

The Ely District BLM proposes to restore sagebrush and mountain brush ecological sites and reduce fuel loading on selected polygon areas in the Butte Valley Watershed using a combination of vegetation treatment methods that minimize disturbance while accomplishing resource objectives. Treatment methods would include thinning of pinyon and juniper trees using equipment such as a bull hog or feller buncher that masticates trees, chaining, selective hand thinning of trees using chainsaws, and herbicide treatment of a small 5 acre area. Approximately 4,400 acres, but no more than 7,000 acres would be treated within an overall area of 23,277 acres. Approximately 50% of the treated acres would be seeded. The seed would be distributed using small, low impact all terrain vehicles (ATVs) or aerially by helicopter. The seed mixture would include perennial grass, forb, and shrub species adapted to the ecological site. The seed mixture would also be chosen based on species that would be likely to stabilize the soils.

Slash/biomass removal would depend on the type of vegetation treatment method used. Large trees and large tree limbs would be removed from the sites or shredded to small chips and left as mulch on the soil surface to degrade naturally. Some large trees and limbs may be left for woodcutters. The remaining slash/biomass (crushed or cut trees) would either be consolidated and burned following the treatment or left on site to degrade by natural means. Generally, the treatment area would be left open or relatively free of trees, limbs, and slash, since sage-grouse prefer open areas. Vegetation treatment would occur in a mosaic pattern, leaving islands of untreated vegetation. Both public lands and private lands would be treated.

An area of rubber rabbitbrush and other dense shrubs along Combs Creek of approximately five acres would be treated with an aquatic approved herbicide (2,4 D) in order to reduce the shrub component and allow the expansion of the more appropriate riparian grasses and forbs to colonize the riparian corridor. This treatment would be applied to shrubs manually, with small back pack sprayers.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species are found within the project area:

Carduus nutans	Musk thistle
Cirsium vulgare	Bull thistle
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle

The following species along with the above species are found along roads and drainages leading to the area:

Centaurea stoebe	Spotted knapweed

There is also cheatgrass (*Bromus tectorum*) scattered along roads and in native range in the area. The area was last inventoried for noxious weeds in 2006.

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the average factor rates as Moderate (6) at the present time. This project has a range of ratings for this factor depending on the treatment method selected. The hand removal method and the herbicide treatment have a Low rating due to the minimal amount of ground disturbance associated with those treatments. Having public access the area to retrieved fuel wood has a Moderate rating due to the amount of ground disturbance and the possibility of transporting weed seeds on the vehicle tracks. The chaining and use of heavy equipment have a High rating due the weed infestations that already exist within the project area and the possibility of transporting new weeds to the project area. Aerial reseeding rates Low, while reseeding using equipment has High rating due to the possibility of spreading existing weeds. However, reseeding with native and non native desired species in the treatments would help prevent or reduce weed establishment.

Current treatments of weeds on public land and private land will minimize spread of noxious weeds including the large populations of hoary cress that exist along roads. There is hoary cress at Cedar Spring that is not currently being treated. When that phase of the project occurs treating the hoary cress should be considered to prevent spread.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (6) at the present time. Since most of the existing infestations occur along roads these could be transported into treatment areas. If new infestations establish within the project area this could adversely impact those native plant communities. Also, an increase of cheatgrass could alter the fire regime in the area. However, the proposed action is designed to improve native plant communities and includes weed prevention and control measures to reduce impacts from weeds. No adverse cumulative effects or impacts outside the treatment area are anticipated.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures

	should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (36). This indicates that the project can proceed as planned as long as the following measures are followed:

- As much as feasibly possible, avoid treatments on south facing slopes where cheatgrass occurs.
- Prior to entering public lands, the contractor will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the District Weed Coordinator or designated contact person.
- Reclamation would normally be accomplished with native seeds only. These would be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected nonnative species would be documented. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. Where large acreages are burned by fires and seeding is required for erosion control, all native species could be cost prohibitive and/or unavailable.
- Determine seed mixes on a site specific basis dependant on the probability of successful establishment. Use native and adapted species that compete with annual invasive species or meet other objectives.
- Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.
- Monitoring will be conducted for a period no shorter than the life of the project and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds are noted, appropriated weed control procedures will be determined in consultation with Ely District Office personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. Submission of Pesticide Use Proposals and Pesticide Application Records will be required.

- Conduct mixing of herbicides and rinsing of herbicide containers and spray equipment only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
- When managing in areas of special status species, carefully consider the impacts of the treatment on such species. Wherever possible, hand spraying of herbicides is preferred over other methods.
- Do not conduct noxious and invasive weed control within 0.5 mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season.
- All applications of approved pesticides will be conducted only be certified pesticide applicators or by personnel under the direct supervision of a certified applicator.
- Prior to commencing any chemical control program, and on a daily basis for the duration of the project, the certified applicator will provide a suitable safety briefing to all personnel working with or in the vicinity of the herbicide application. This briefing will include safe handling, spill prevention, cleanup, and first aid procedures.
- Store all pesticides in areas where access can be controlled to prevent unauthorized/untrained people from gaining access to chemicals.
- Do not apply pesticides within 440 yards (0.25 mile) of residences without prior notification of the resident.
- Areas treated with pesticides will be adequately posted to notify the public of the activity and of safe re-entry dates, if a public notification requirement is specified on the label of the product applied. The public notice signs will be at least 8 ½" x 11" in size and will contain the date of application and the date of safe re-entry.

Reviewed by: /s/Mindy Seal 2/8/2011

Mindy Seal
Natural Resource Specialist

Date

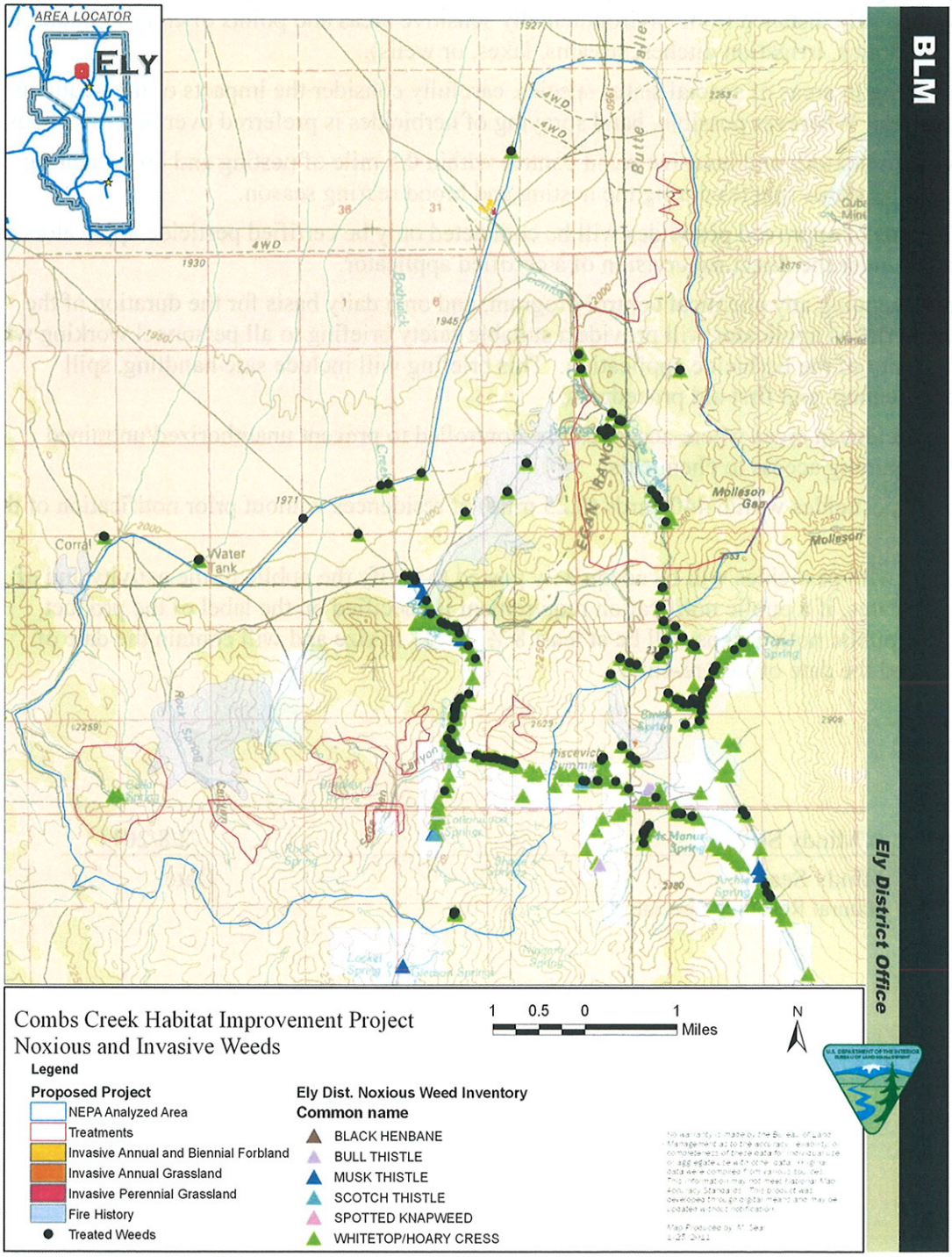


Figure 1. Combs Creek Noxious and Invasive Weed Map

10.0 APPENDIX C

Possible Migratory Birds within or Adjacent to the Proposed Project Area

The following data reflect survey blocks and/or incidental sightings of bird species within or near the project boundaries from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data represent birds that were confirmed, probably, or possibly breeding within or near the boundaries. These data are not comprehensive, and additional species not listed here may be present within the project boundary.

SPECIES	COMMON NAME
American kestrel	*(Falco sparverius)*
American robin	*(Turdus migratorius)*
black-billed magpie	*(Pica hudsonia)*
brown-headed cowbird	*(Molothrus ater)*
black-headed grosbeak	*(Pheucticus melanocephalus)*
Brewer's blackbird	*(Euphagus cyanocephalus)*
*Brewer's sparrow	*(Spizella breweri)*
bushtit	*(Psaltriparus minimus)*
Cassin's finch	*(Carpodacus cassinii)*
chukar	*(Alectoris chukar)*
common nighthawk	*(Chordeiles minor)*
common poorwill	*(Phalaenoptilus nuttallii)*
common raven	*(Corvus corax)*
dusky flycatcher	*(Empidonax oberholseri)*
european starling	*(Sturnus vulgaris)*
*greater sage-grouse	*(Centrocercus urophasianus)*
green-tailed towhee	*(Pipilo chlorurus)*
house wren	*(Troglodytes aedon)*
mourning dove	*(Zenaida macroura)*
northern flicker	*(Colaptes auratus)*
rock wren	*(Salpinctes obsoletus)*
sage thrasher	*(Oreoscoptes montanus)*
Savannah sparrow	*(Passerculus sandwichensis)*
spotted towhee	*(Pipilo maculatus)*
Virginia's warbler	*(Vermivora virginiae)*
warbling vireo	*(Vireo gilvus)*
white-crowned sparrow	*(Zonotrichia leucophrys)*
western scrub jay	*(Aphelocoma californica)*

* = Sensitive or species of concern

Works Cited

Floyd T, Elphick CS, Chisholm G, Mack K, Elston RG, Ammon EM, and Boone JD. 2007. Atlas of the Breeding Birds of Nevada. Reno: University of Nevada Press.